7138

AUTINOR

Installation Manual

SERIE 32
MLIFT VECTOR

Programmation Vectorielle

Programme: B-HB32
Programme: VSC-V02

Version of 29 November 2000

WARNING

This manual is deemed correct on going to press.

The information contained has been scrupulously checked. However ***AUTINOR*** declines all responsibility for error or omission.

Should you notice any discrepancy or unclear description, or if you have any suggestions, we would appreciate your written comments (by mail fax or Email) to:

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ELECTROMAGNETIC COMPATIBILITY

Since the 1st January 1996 all lift installations are obliged to respect the essential requirements of the European Directive 89/336/CEE concerning Electromagnetic Compatibility (EMC).

The equipment is only one component of an installation; it is therefore not obliged to show the CE marking as stated in this directive. However in order to allow you to write your **declaration of conformity**, and according to professional rules, all ***AUTINOR*** controllers are supplied with an ***engagement of conformity***.

Your declaration of conformity can rest on this engagement,

only if the equipment has been installed exactly as advised in this manual.

PREAMBLE

Handling advice for equipment:

Whatever the load, handling operations can be dangerous (collision, dropping, crushing,…). Whenever possible use mechanical handling rather than manual handling. When manual handling can not be avoided, respect the rules.

At European level, these rules are set out in the Directive 90/269/CEE, Council Directive dated 19 May 1990 "concerning minimal heath and safety instructions for manual load handling with risks, to the worker, notably in the lower spinal area".

En France, la réglementation de la manutention manuelle est constituée des textes suivants :

- *Code du travail article R 231-72 (Décret n° 92-958 du 3 septembre 1992 transposant en droit français la directive européenne 92/269/CEE)*

  « Lorsque le recours à la manutention manuelle est inévitable… un travailleur ne peut être admis à porter d'une façon habituelle des charges supérieures à 55 kilogrammes qu'à condition d'y avoir été reconnu apte par le médecin du travail, sans que ces charges puissent être supérieures à 105 kilogrammes. »

- *Décret n° 95-826 du 30 Juin 1995, Titre 1er - article 8 « fixant les prescriptions particulières de sécurité applicables aux travaux effectués sur les ascenseurs »*
  + Circulaire de mise en œuvre DRT 96/3 du 25 Mars 1996

  « … Les travaux comportant le port manuel d'une masse supérieure à 30 kilogrammes, ou comportant la pose ou la dépose manuelle d'éléments d'appareils d'une masse supérieure à 50 kilogrammes, … doivent être effectués par au moins deux travailleurs ; »

complétée par la norme française NF X 35-109 qui donne des recommandations plus précises qui prennent en compte les paramètres suivants : âge du travailleur, nature de la tâche (occasionnelle ou répétitive), charge unitaire, distance parcourue :

	Load permitted (occasional carrying)	Load permitted (constant carrying)
Man 18 / 45 years	30 kg	25 kg
Man 45 / 60 years	25 kg	20 kg

Safety measures:

Follow the instructions which were given to you by your management when using individual protection equipment (gloves, shoes, glasses, restraint harness, etc).

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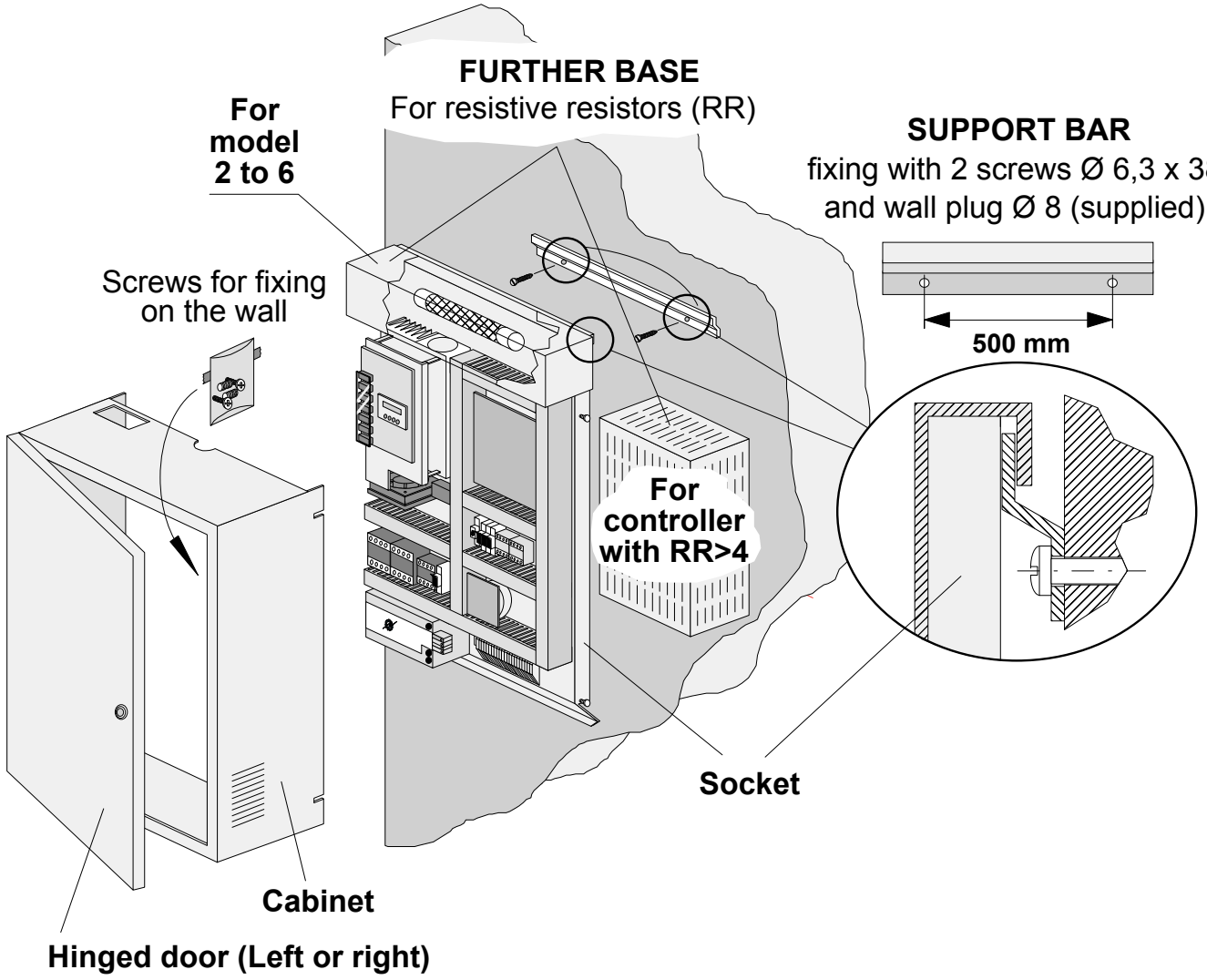
CHAPTER I

GENERALITIES

HOW TO INSTALL THE CONTROLLER CABINET



Controller dimensions : L = 750 mm, H = 1050 mm, D = 300 mm

Controller dimensions with a lot of Extra Items : L = 900 mm, H = 1050 mm, D = 300 mm

Separate Box for more than 4 Breaking Resistors : **L = 320 mm, H =600 mm, D = 250 mm.**

Protection against electrical shocks : IP 31

Don't forget than the EN-81-1 Standard § 6.3.2.1:

6.3.2.1 The dimensions of machine rooms shall be sufficient to permit easy and safe working on equipment, especially the electrical equipment.

In particular there shall be provided at least a clear height of 2 m at working areas, and :

a) a clear horizontal area in front of the control panels and the cabinets. This area is defined as follows :

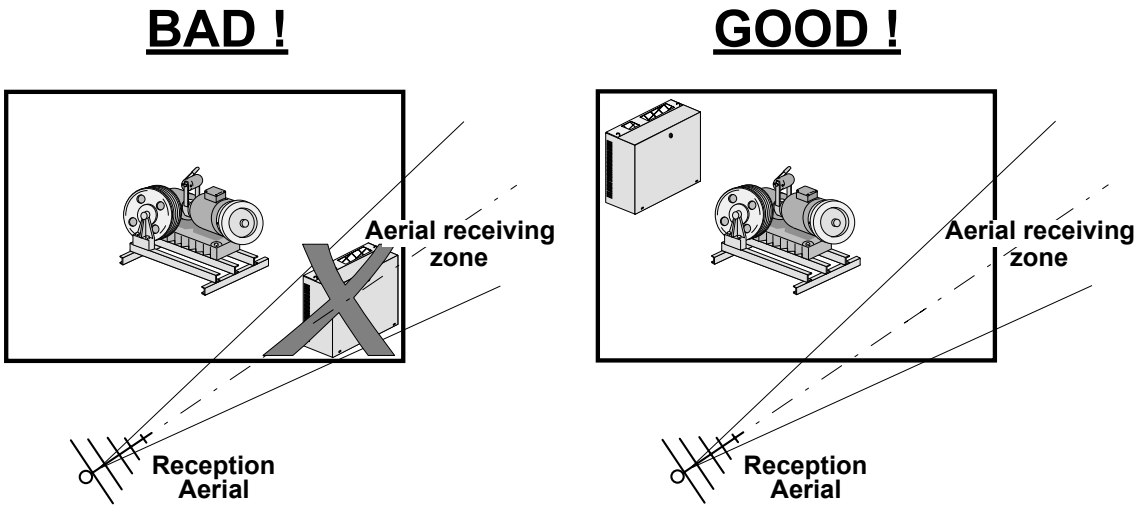
1) depth, measured from the external surface of the enclosures, at least 0,70 m ;

2) width, the greater of the following values : 0,50 m or the full width of the cabinet or panel ;

b) a clear horizontal area of at least 0,50 m x 0,60 m for maintenance and inspection of moving parts at points where this is necessary and, if need be, manual emergency operation (**12.5.1**).

CONTROLLER POSITION AND ELECTROMAGNETIC COMPATIBILITY (1/4)

When the machine room supports or is near a **radio or television reception aerial**, do not put the controller cabinet in the aerial receiving zone (figure 1).

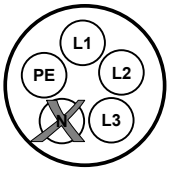


Placing the frequency drive outside the aerial receiving zone

If you can not find a suitable place for the frequency drive cabinet, **get the aerial moved!** If that is not possible, contact ***AUTINOR*** who will decide along with the building owner, what measures need to be taken according to the EN 12015 and EN 12016 Standard for *lifts*, *escalators and passengers conveyors*.

PRÉCAUTIONS TO TAKE.

1. The power supply arrival **L1, L2, L3 and Earth** (Yellow/Green) **must all pass through the same cable**.



2. The power link between the **MB32 Vector drive and the motor** (**11**, **12**, **13** + **Earth**) must go through the same cable. In order to reduce disturbances a **screened cable (LIYYCY** type, **minimal length of cable: 3m50) must be used**, even if the motor cable is mechanically protected by a tube or metal trunking. This screening should consist of at least one flat cable, the greater the number of flat cables the greater the efficiency of the screening. The cable should be supple for ease of installation in the machine room and should comply with EN 81 standards.
To be completely efficient the screening must be connected at the **same time** to the controller metal casing and to the motor metal housing.
In order to reduce any coupling effects, it is advisable to maximise the distance between the motor cable and the three phase power supply cable, both inside and outside the controller; for the same reason, you should keep the cables carrying high current as far apart from those carrying low current as possible. These two types of cable should not be placed in the same trunking, nor go through the controller casing via the same hole.

ELECTROMAGNETIC COMPATIBILITY PRECAUTIONS (2/4)

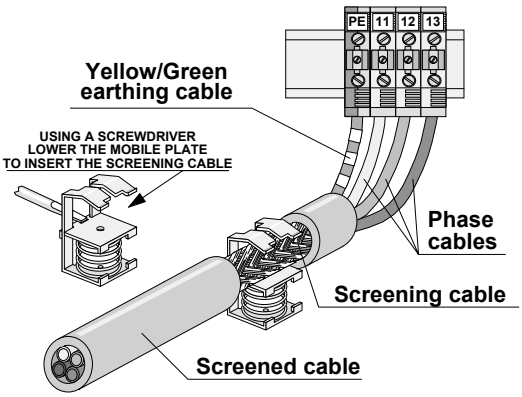
At not time should the screening cable replace the yellow-green earthing cable.

ADVICE: In order to ensure the electromagnetic compatibility, it may be necessary to use to connect to the motor, a metal stuffing box with a screening contact allowing an efficient electrical link between the flat screening cable and the metal housing (see figure below).

If the motor terminal box is isolated, then a metal stuff box is of course useless. The screening cable should be linked in the shortest way to the motor earth terminal block.

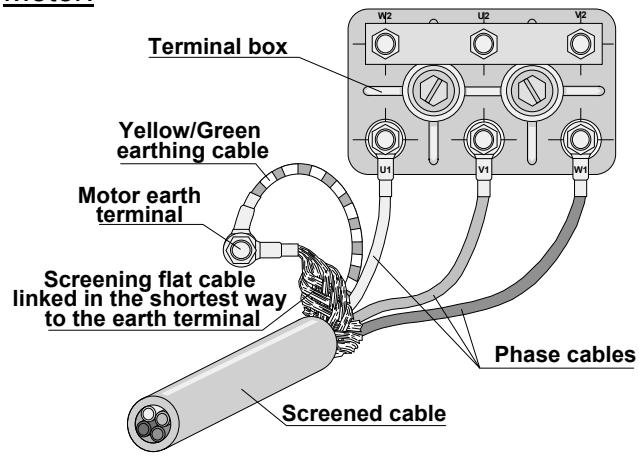
- **Conventional connection :**

Controller:



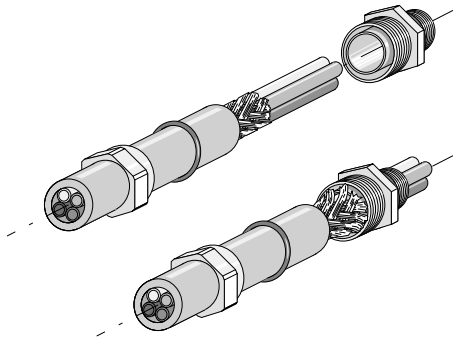
Note: Keep the motor cable as far apart from the power cable as possible, inside as well as outside the controller.

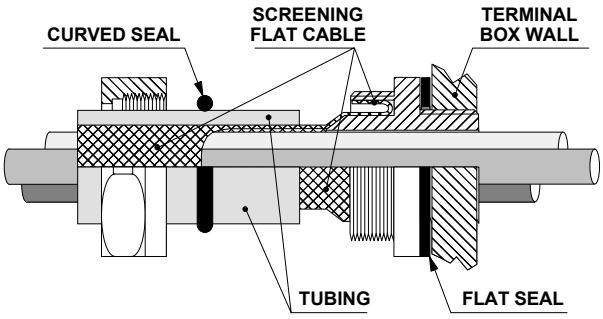
Motor:



Note: The cables should only be separated from the screening once inside the terminal box.

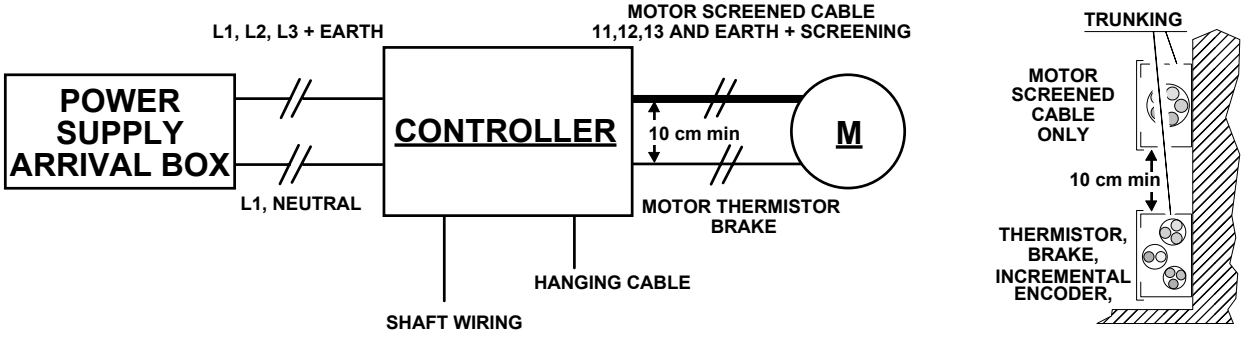
- **Connection using stuff-box :**





3. The other links between the **MB32** **Vector drive and the motor**, i.e. .the brake (**+BR** and **-BR**), the motor thermistor (**0V**, **STH**) can run together but kept at least **10 cm** from the power cables.

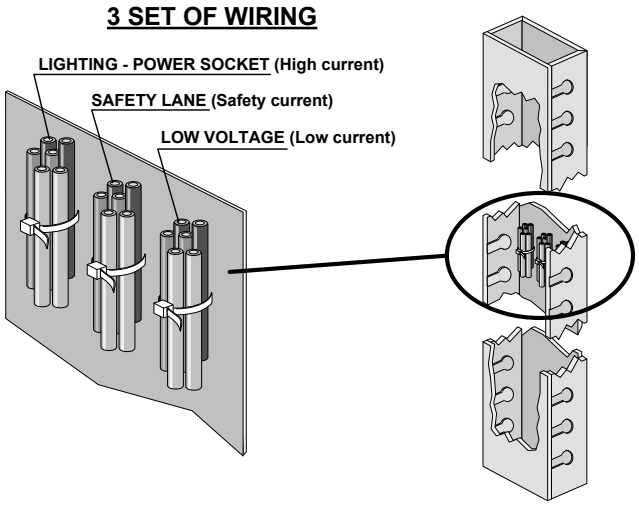
EXAMPLE:



Check that the power supply arrival does not flow close to the MB32 Vector drive and motor link.

ELECTROMAGNETIC COMPATIBILITY PRECAUTIONS (3/4)

CONCERNING THE SET OF WIRING IN THE LANDING COLUMN SEPARATION.



WARNING:

We recommend to separate
in the landing column,
the 3 sets of wiring in 3 rows:

Lighting - Power sockets
Safety lane
and Low Voltage,

in order for ease of maintenance and taking
EMC* regards into account

* EMC : **E**lectro**M**agnetic **C**ompatibility

CONCERNING TRAILING CABLE SEPARATION.

The devices controlled by the contactors are powered by wires which go into the trailing cable

The trailing cable's other conductor wires do not transport strong currents to activate power devices, but electrical "DATA" via weak currents. This data could be, for example, the state of the door limits necessary to control the automatic doors, or the car calls.

To show you the difference in importance between the two types of current, here is an example: Certain door motors can use 3 amps whereas the current used for the data concerning the state of the door limits is only 3 mA.

There is, in this typical example, a ratio of 1 to 1000.

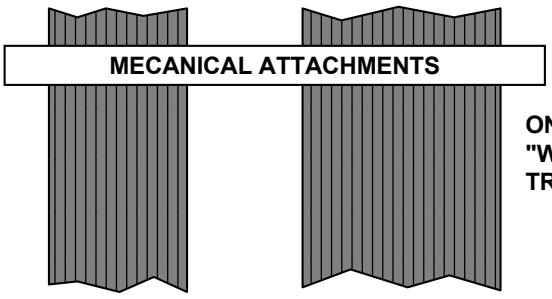
This ratio is often even greater, especially when you consider the starting current of a power device when it is first switched on. It is clear that the big currents will influence the little ones if care is not taken to separate them.

IF THESE CURRENTS IN THE TRAILING CABLE ARE NOT SEPARATED:

- **FALSE DATA WILL BE SENT TO THE CONTROLLER,**
- **THERE WILL BE GRADUAL DETERIORATION OF THE ELECTRONIC COMPONENTS (ANYTHING FROM 3 DAYS TO A FEW MONTHS).**

THE SHORT OR MEDIUM TERM CONSEQUENCES WILL BE SOME "STRANGE" FUNCTIONING BY THE CONTROLLER, EVENTUALLY CAUSING BREAKDOWNS! ! !

TO SUM UP, IT IS ESSENTIAL THAT THE CONDUCTOR WIRES FROM THE TRAILING CABLE CARRYING STRONG CURRENTS FOR THE RETIRING RAMP, DOOR MOTOR, BRAKING INJECTION, ANTI-CREEPS AND THE CAR VENTILATION MOTOR, NOT TO MENTION THE CAR LIGHT AND SAFETY CHAIN, ARE SEPARATED FROM THE OTHER CONDUCTORS CARRYING WEAK CURRENTS.



THE TRAILING CABLES MUST BE SEPARATED AS FAR APART AS POSSIBLE AND SHOULD BE ARRANGED IN THE SHAFT AS SHOWN BELOW:

IF YOU ARE USING HALF-WAY BOXES, YOU SHOULD ALSO TAKE CARE TO SEPARATE THE WIRES.

The precautions carried out above should be taken in the controller as well. In fact, you should avoid crossing wires in all directions behind the controller and should leave a little slack to aid maintenance.

USE OF DIFFERENTIAL CIRCUIT BREAKERS WITH AUTINOR FREQUENCY DRIVES (4/4)

First of all as a reminder :

- The low voltage directive explicitly states that electrical lift installations are excluded from its field of application and so the standards relating to electrical installations only applies as far as the input terminals of the main lift installation switch (cf EN 81 § 13.1.1.2) ;
- Nevertheless the safety of all people must be ensured, and so to do this, we rely as much as possible on the detail of C 15-100 taking into account the imperatives concerning lifts.

The standard C 15-100 § 532.2.1.3 states that :

« *Les dispositifs de protection à courant différentiel-résiduel doivent être choisis et les circuits électriques divisés de telle manière que tout courant de fuite à la terre susceptible de circuler durant le fonctionnement normal des appareils ne puisse provoquer la coupure intempestive du dispositif.* »

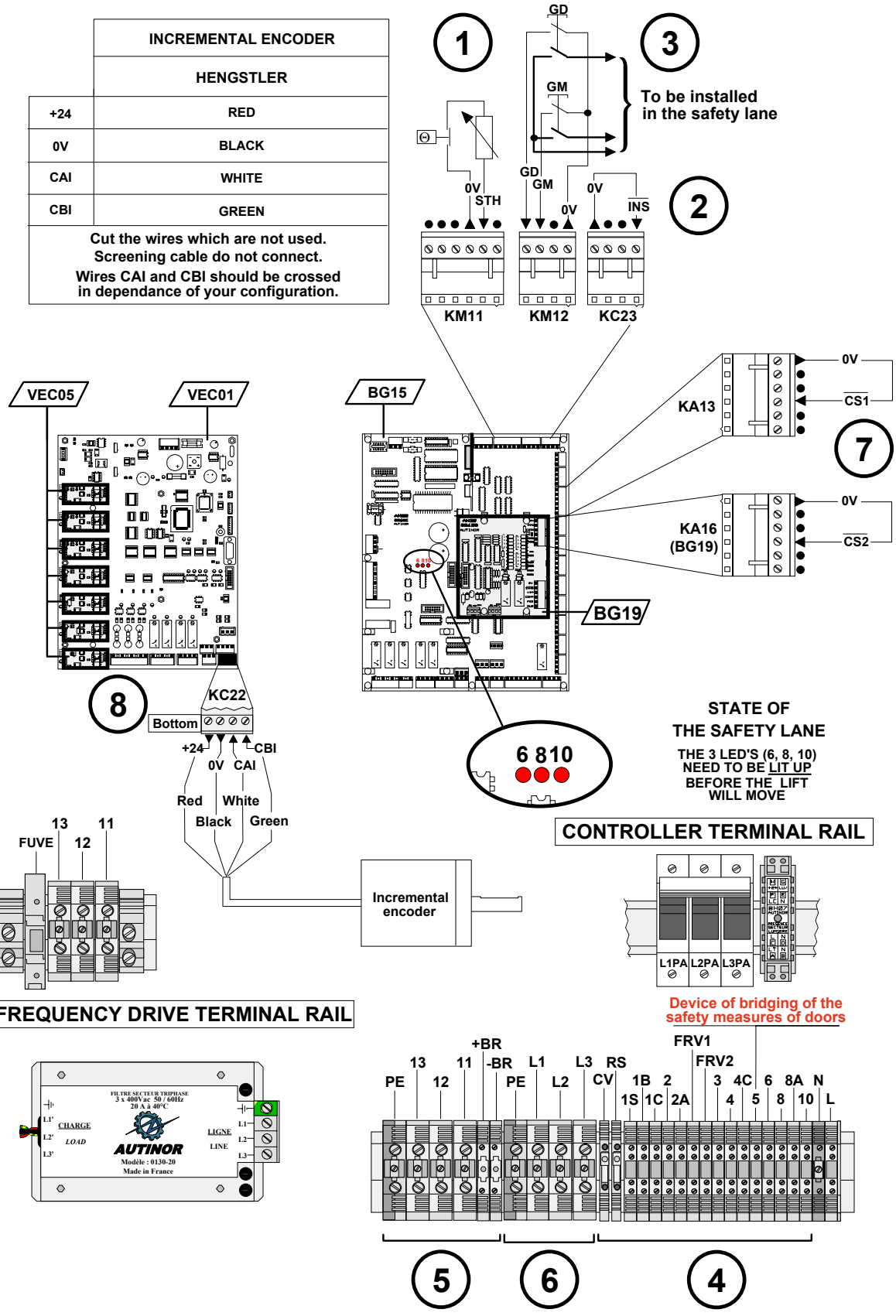
AUTINOR frequency drives have a normal current leakage when loaded around 100 mA. We therefor recommend the Lift installation be supplied through a differential circuit breaker with a differential current (= « sensitivity ») $I\delta_n$ = 300 mA.

What is more, C 15-100 states that for electrical installations cabled conform to the TT diagrams (installations powered by the public electricity network), people should be protected against indirect contacts by differential residual current circuit breaker which implies the following of the relation ship which links the circuit breaker differential current $I\delta_n$ to the maximum conventional voltage of the U_L contact and of the earthing socket resistance :

$$I\delta_n * R_A \leq U_L \text{ (NF C 15-100 § 532.2.4.2)}$$

If the earthing socket resistance exceeds 100 Ω, the electrician may use an S type differential circuit breaker with a differential current of 300 mA, which will ensure protection against indirect contact for an earthing socket resistance of up to 167 Ω. You should nevertheless ensure that a « full load » movement does not break the circuit at the wrong moment.

MINIMUM CONNECTIONS NECESSARY FOR INITIAL MOVEMENT (1/4)



Minimum connections necessary for initial movement

MINIMUM CONNECTIONS NECESSARY FOR INITIAL MOVEMENT (2/4)

During the construction phase, you can temporarily use the ***0V***, ***GM*** and ***GD*** inputs on the ***KM12*** connector for running up and down respectively.

CONNECT AS FOLLOWS:

(See on page 18 for where to make these connections)

1. Connect the thermistor and/or the motor safety thermo-contact between the ***STH*** and ***0V*** terminals on the ***KM11*** connector

2. Temporarily bridge ***0V*** and ***INS*** on the ***KC23*** connector.

3. The "up" and "down" push buttons on the inspection box on the car roof to the ***GM***, ***GD*** and ***0V*** terminals on the ***KM12*** connector.

4. The safety circuits ***1S***, ***6***, ***8*** and ***10*** on the ***electromechanical terminal rail***.

5. The traction motor to ***11***, ***12 ,13*** on the electromechanical terminal rail and the ***EARTH*** to the ***earth collecting bar***, as well as the brake power supply ***+BR*** & ***-BR***

6. The power supply to ***L1***, ***L2***, ***L3*** and the ***Earth***.

WARNING: DO NOT CONNECT THE L1, L2, L3 POWER SUPPLY TO 11, 12, 13 OR YOU RISK DAMAGING THE TRANSISTORS.

CONNECT POINTS ①, ⑤, ⑥ FOLLOWING THE ELECTROMAGNETIC COMPATIBILITY RECOMMENDATIONS AS SHOWN ON PAGE 13.

7. Temporarily bridge ***CS1*** and ***0V*** on ***KA13*** and possibly ***CS2*** and ***0V*** on ***KA16*** of the ***BG19*** board (when there are 2 door operators).

8. Connect the four wires on the incremental encoder to the ***KC22 (Bottom)*** connector on the ***VEC01*** board.

POWER-UP FOR INITIAL MOVEMENT (3/4)

Switch on the power:

- **The LEDs showing the transistors are green.**

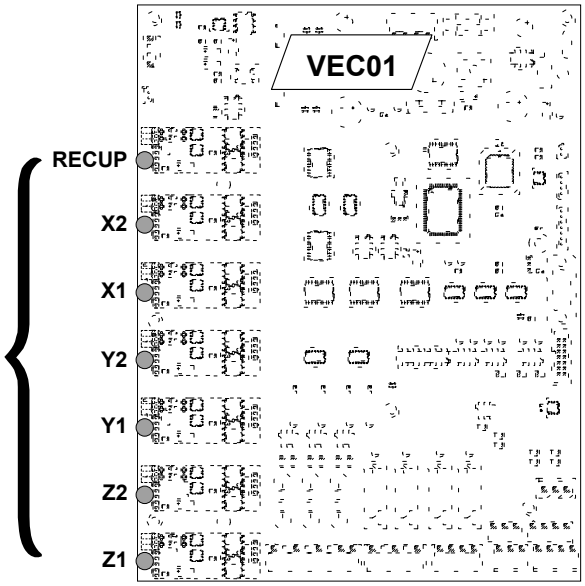
CUT THE SAFETY LANE

Please see page 26 for the description of how to use the frequency drive parameter/diagnostic communication device

Checking the transistor control:

1) At address 041, write 55

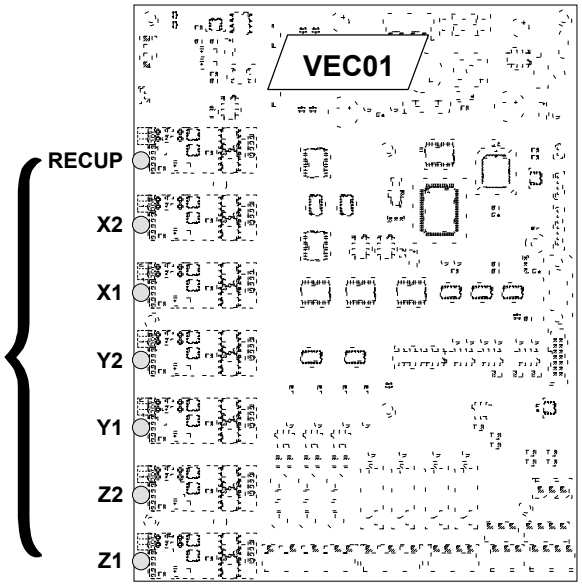
041	TEST	55



THE LEDS BECOME RED.

2) At address 041, write 00

041	TEST	00

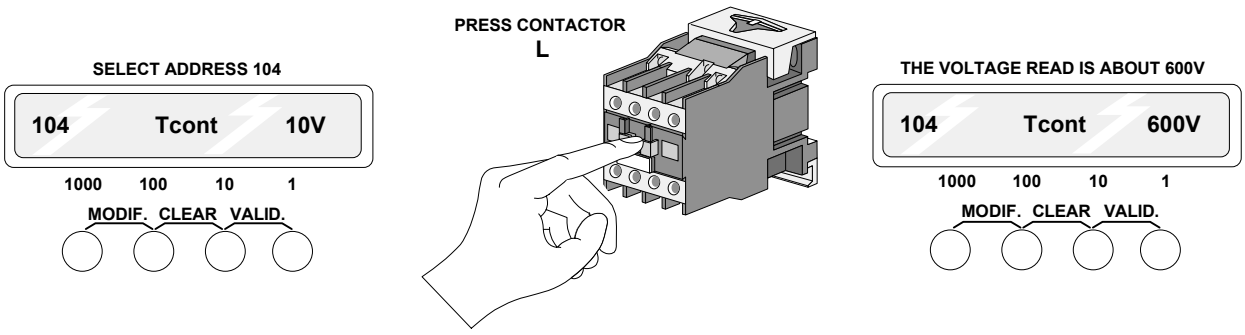


THE LEDS BECOME GREEN AGAIN.

POWER-UP FOR INITIAL MOVEMENT (4/4)

To check the capacitor voltage:

CUT THE SAFETY LANE!



To check the VEC12 current measuring device:

- Check at addresses **12A** and **12E** that the value is between 500 and 524. If the values are not coherent, check the connection of the **K8** connector of the **VEC01** board.

To check the incremental encoder connection:

- Check at address **116** on the parameter/diagnostic communication device (see page 28) that the number of impulses **increases** as you turn the rotor in the **direction** corresponding to **up**, and **decreases** in the **direction** corresponding to **down**. Turn the rotor **gently** by hand.

If the number of impulses changes in the wrong direction, inverse the **CAI** and **CBI** wire on the **KC22 (bottom)** connector of the **VEC01** board.

Check that the parameters are coherent (see Chapter VII Frequency drive parameters):

RECONNECT THE SAFETY LANE!

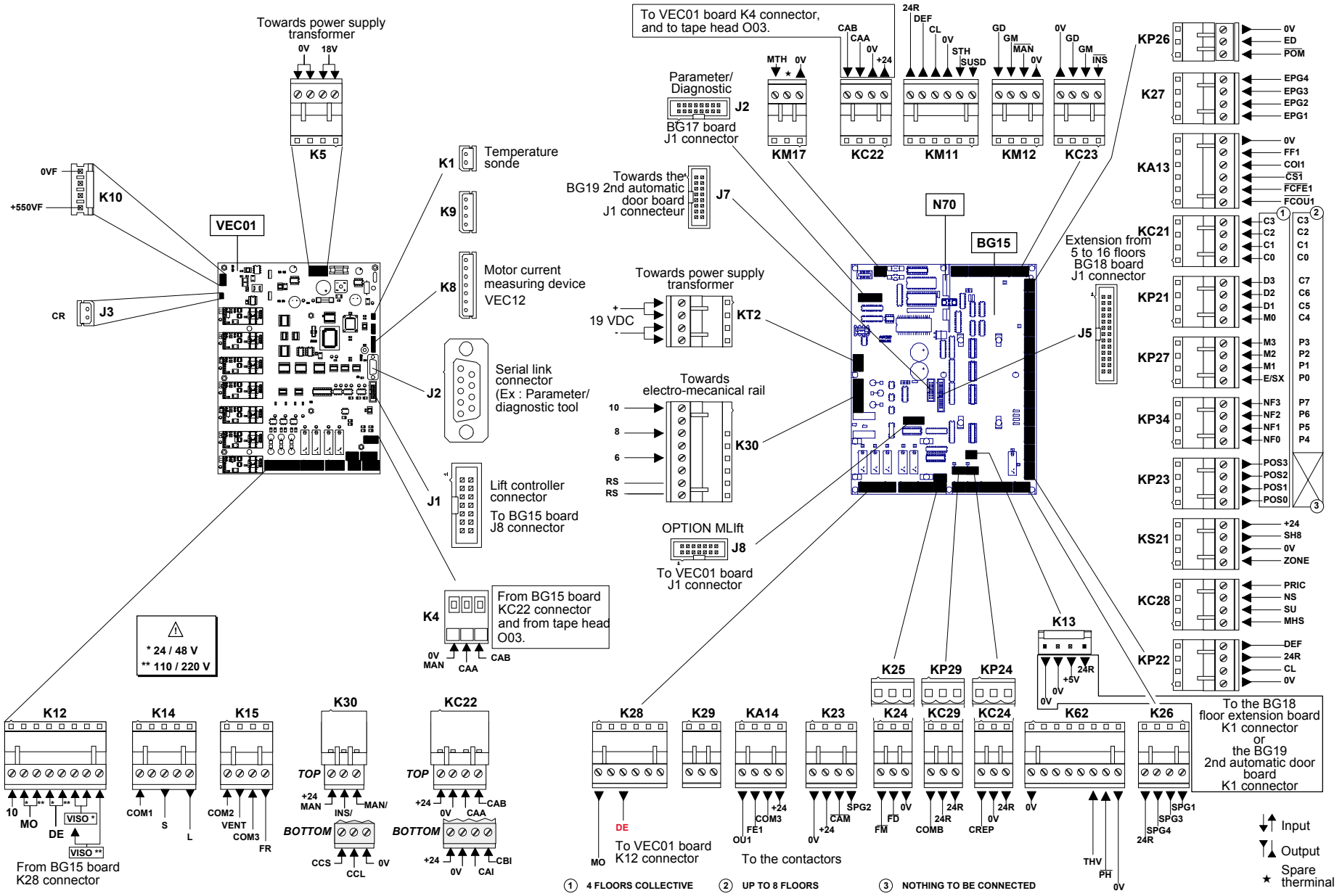
Try an up movement and then a down movement, and check that the lift starts off in the required direction.

Possible faults:

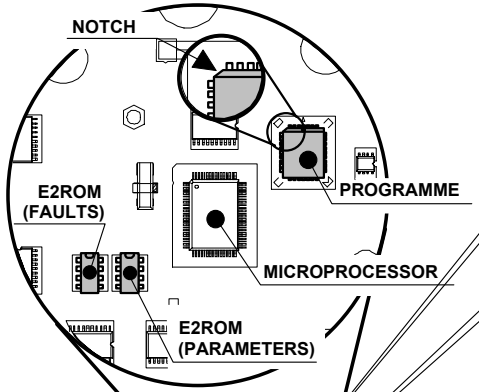
The system might come up with one or more of the following fault codes:

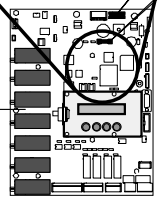
- **17**: Phase ***failure*** or ***inversion*** of the controller.
- **102**: ***Gap*** between the ***advised*** and ***real speed*** of more than ***15%*** in ***Slow Speed.***
- **100**: Motor ***over-intensity***.
  - ***Cross*** two of the motor phases.
  - Check that the encoder is **wired correctly**.
- **62**: ***O03*** tape head ***fault.***

LOCATION OF TERMINAL BLOCKS



LOCATION AND FUNCTION OF FUSES



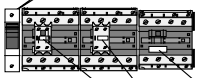


VEC01

FU1 (2A)
ELECTRONIQUE AND SIGNAL POWER SUPPLY PROTECTION
2A-250 V dim: 5 X 20 TIME LAG

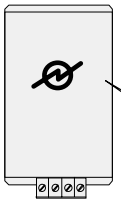
SPARE FUSE
for FU1
2A-250V dim: 5x20 TIME LAG

FU+
DC PROTECTION BY PROTISTOR® DEPENDING ON THE DRIVE MODEL.
(SEE TABLE BELOW)
⚠
The position of FU+ is depending of the V.F. Model



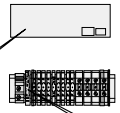
BRAKE CONTACTOR

POWER CONTACTORS



3 PHASE NETWORK CURRENT FILTER
380 V dim: 6 X 32

	GE 32	LA 32 - TB 191
L1P	6A	4A
L2P	6A	4A
L3P	2A	2A



VEC12
MOTOR CURRENT MEASURING DEVICE
If you should replace the motor current measuring device VEC12
It is IMPERATIVE to followed the same path wire

FuVe
TRANSISTOR COOLING FAN PROTECTION
0,5A-250 V dim: 5 X 20 QUICK ACTING

FU2, FU3
DC CURRENT PROTECTION
(brake, retiring ramp, electrovalves ...)
250V dim: 5 X 20 TIME LAG
For type 1 or 2 transformer
T1=5A / T2= 2A

FU1
EQUIPMENT POWER SUPPLY PROTECTION
5A-250 V dim: 5 X 20 TIME LAG

FU4
SAFETY LANE POWER SUPPLY PROTECTION
2A-250 V dim: 5 X 20 TIME LAG

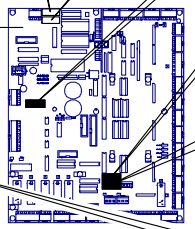
RED LED
ELECTRONIC RECTIFIED CURRENT PRESENT (MAIN BOARD)

SPARE FUSE
for FU4.
for FU2 & FU3 if Type 2 transformer
2A-250V dim: 5x20 TIME LAG

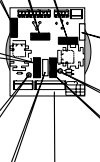
SAFETY LANE PROTECTION

SPARE FUSE
for FU2 and FU5
2,5A-250V dim: 5x20 QUICK ACTING

BG15



BG22



SPARE FUSE
for FU1
5A-250V dim: 5x20 TIME LAG

FU1
ELECTRONIC AND SIGNAL POWER SUPPLY PROTECTION
5A-250V dim: 5 x 20 TIME LAG

FU5
24RB, PROTECTION WIRE FOR CALL PANEL BUTTONS
2,5A-250V dim: 5 x 20 QUICK ACTING

FU2
COMB, PROTECTION WIRE FOR CALL PANEL BUTTONS
2,5A-250V dim: 5 x 20 QUICK ACTING

SPARE FUSE
for FU1 & FU7.
for FU2 & FU3 if Type 1 transformer
5A-250V dim: 5x20 TIME LAG

YELLOW LED
RECTIFIED CURRENT PRESENT
(brake, retiring ramp, electrovalves, anti-creep ...)

FU7
RECTIFIED CURRENT PROTECTION TYPE A
5A-250V dim: 5 x 20 TIME LAG

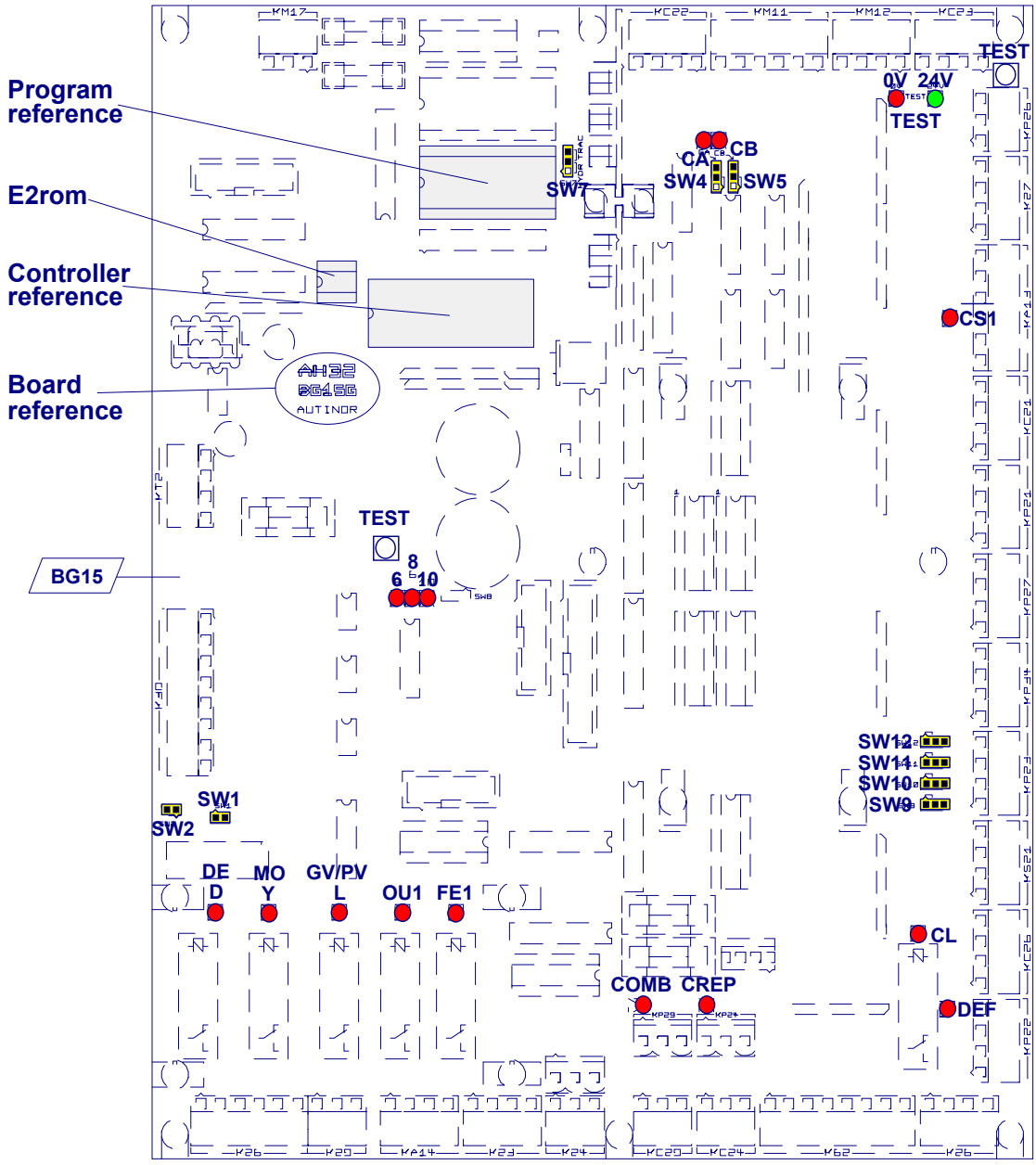
FU1
BH07
BOX PROTECTION
5A-250V dim: 5 x 20 TIME LAG

L1PA-L2PA-L3PA
DOOR 1 AND DOOR 2 PROTECTION OF THE INPUT PHASES FOR THE DOOR MOTOR OPERATOR 1
2A-380V dim: 8,5 x 31,5

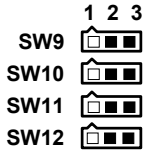
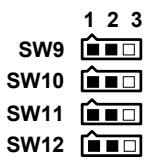
ATTENTION !!!
ONLY USE PROTISTORS® CAPABLE OF WHITHSTANDING 600V AND SPECIALLY CONCEIVED TO PROTECT SEMI-CONDUCTORS. THE USE OF OTHER FUSES IS DANGEROUS AND COULD DAMAGE THE TRANSISTORS IF THERE IS A POWER SURGE OR SHORT CIRCUIT.

MODEL	PROTISTOR®
N°2	25 A (10x38)
N°3	40 A (14x51)
N°4	50 A (14x51)
N°5	63 A (22x58)
N°6 / N°7	80 A (22x58)

LOCATION OF LED, JUMPERS AND RELAY OF THE BG15 BOARD



FUNCTION OF THE SW1, SW2, SW4-SW5, SW7, SW9-SW10-SW11 & SW12 JUMPERS OF THE BG15 BOARD

 SW1	When the jumper is **present**, 24V increase the mass relays.
 SW2	When the jumper is **present**, 0V increases the mass relays.
SW3	**DOES NOT EXIST.**
 SW4 SW5	When the jumpers are in the **lower** (position **1-2**) the controller is programmed for use with the **P202U** tape-head.
 SW4 SW5	When the jumpers are in the **upper** (position **2-3**) the controller is programmed for use with the **O03** tape-head or the I.L.S proximity switches.
SW6	**DOES NOT EXIST.**
 SW7	When the jumper is in the **lower** (position **HYDR**) the controller is programmed for use as a **HYDRAULIC**.
 SW7	When the jumper is in the **upper** (position **TRAC**) the controller is programmed for use as a **TRACTION**.
SW8	**DOES NOT EXIST.**
 SW9 SW10 SW11 SW12	Place the jumper to the **right** (position **2-3**) for a single button - 2 to 8 floors using on the **BG15** board **only**.
 SW9 SW10 SW11 SW12	Place the jumper to the **left** (position **1-2**) for **all other** situations.

FREQUENCY DRIVE PARAMETER / DIAGNOSTIC COMMUNICATION DEVICE

This chapter contains information which will allow you to adapt the VECTOR equipment to the specific conditions of the lift on which it is installed.

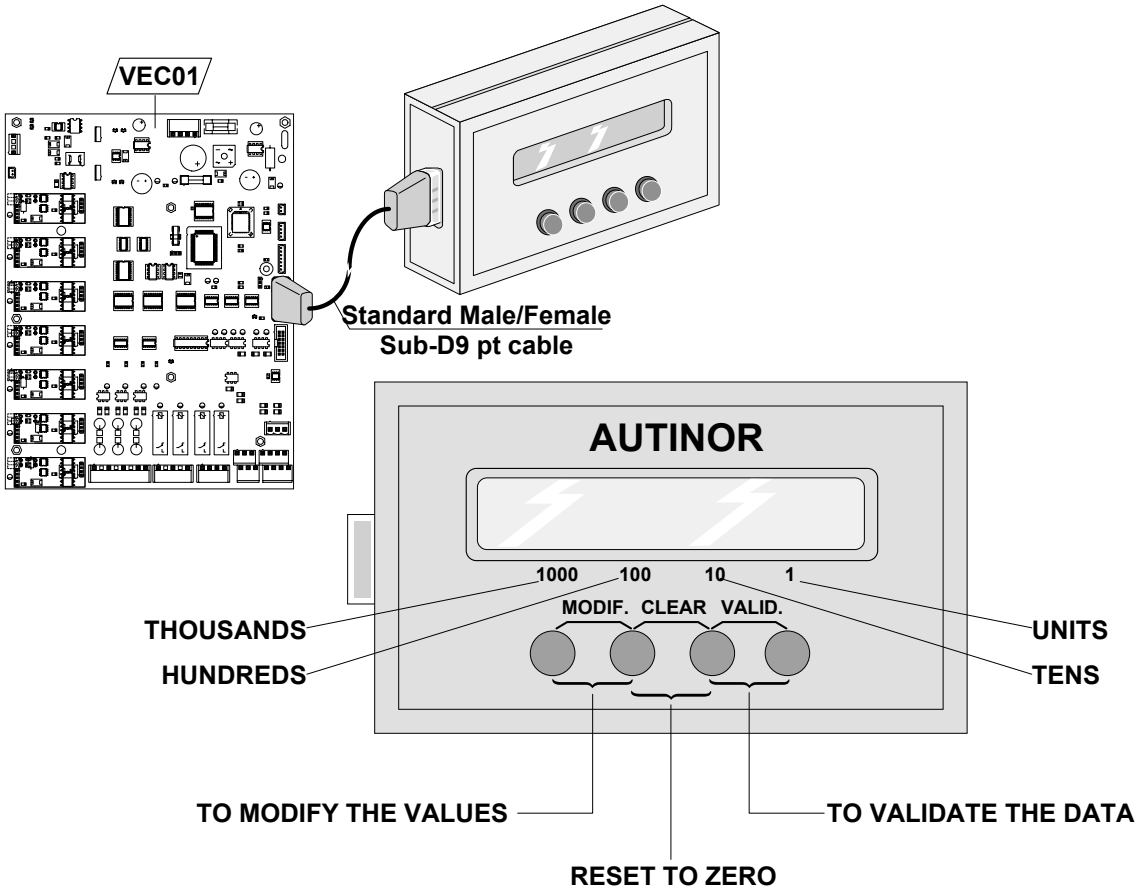
This adaptation is controlled by ***parameters***, which you can modify according to your needs using the removable parameter / diagnostic communication device as described below in the paragraph Accessing the parameters.

The parameters are memorised in a particular type of chip called an ***EEPROM*** [1] (or E2PROM) which **keeps the information even when the equipment is switched off**.

Each parameter is linked to an **abridged name** and an **address** which corresponds to the position at which it is memorised in the EEPROM chip.

Accessing the parameters

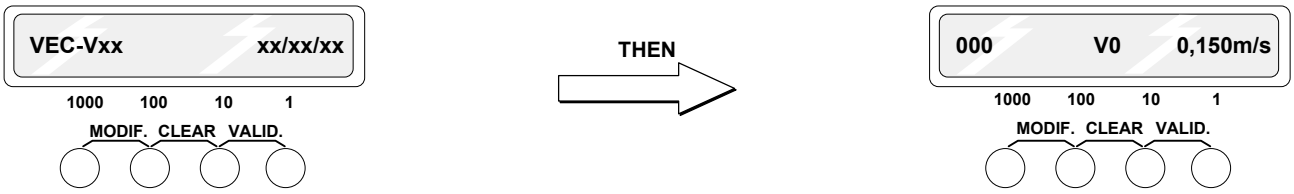
As mentioned above, you can see and modify the parameters using the parameter/diagnostic communication tool; this consists of a 16 characters LCD display with four push buttons, which is connected to the **VEC01** board by a standard Male/Female Sub-D 9 pt cable.



1 EEPROM stands for *Electrically Erasable Programable Read Only Memory*.

TO ACCESS THE PARAMETERS AND THE INPUT-OUTPUT INFORMATION

Power-up the equipment, the display shows:



Each time you press **1** the value shown will increase by **1**.

Each time you press **10** the value shown will increase by **10**.

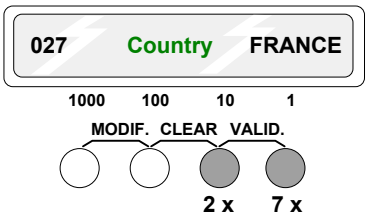
Each time you press **100** the value shown will increase by **100**.

Each time you press **1000** the value shown will increase by **1000**.

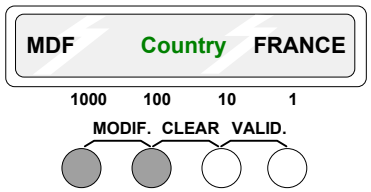
CHOOSING THE LANGUAGE

The parameter/diagnostic communication device is preset to the language of the destination country.
There are four options which appear at address **027** as follows:
FRANCE, ENGLISH, DEUTSCH, ESPAGNOL.

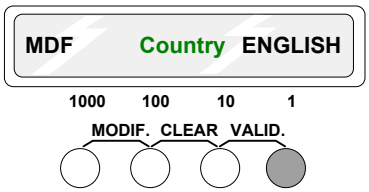
Press twice button **10**, then 7 times button **1,** for address **027**



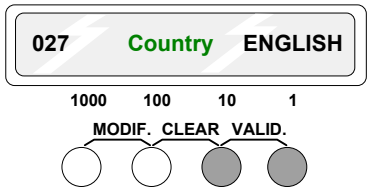
Press both **MODIF** buttons at the same time



Press button **1** and choose the required language.



Register the required language by pressing both **VALID** buttons at the same time

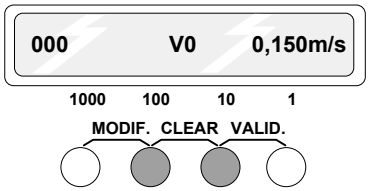


The language in our example is **English**

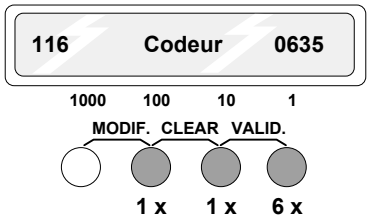
Other example:

VIEWING THE INCREMENTAL ENCODER IMPULSES (SEE PAGE 21).

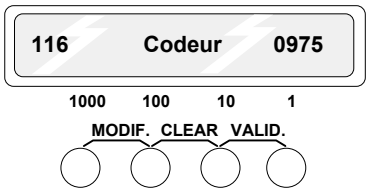
Reset the display to address **000** by pressing the **CLEAR** buttons simultaneously



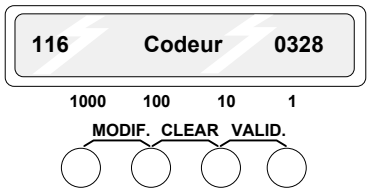
Display address **116** using buttons **100**, **10** and **1**



The value displayed at address **116** increases when the rotor turns in the **upwards** direction

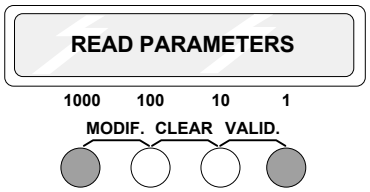


The value displayed at address **116** decreases when the rotor turns in the **downwards** direction

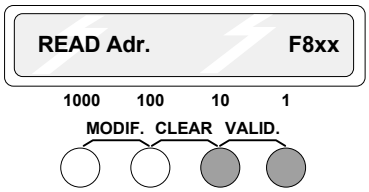


TRANSFER OF THE SETTINGS INCLUDED IN THE VVVF TOWARD THE DIAGNOSTIC TOOL.

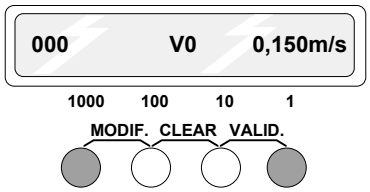
Press the 2 end buttons to make « **READ PARAMETERS** » appear.



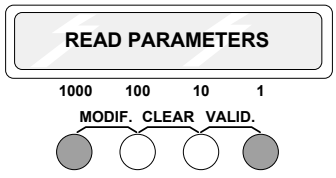
Validate by pressing the « **VALID** » buttons ..... Transfert

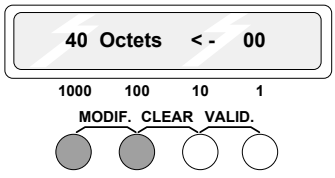


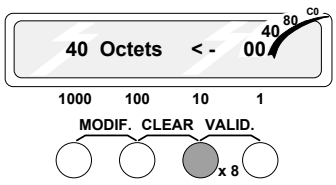
Press the 2 end buttons to return to normal mode

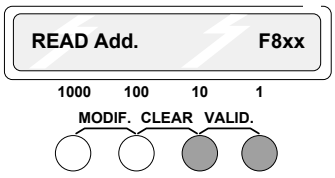


*Note: You can memorise in the E²ROM of the box, the parameters of 4 VVVF door drive, respectively at the addresses **00**, **40**, **80** or **C0**. For that, press the 2 end buttons than press « MODIF » button and modify the right number to **00**, **40**, **80** or **C0** with the 10 button than press « VALID » to validate.*







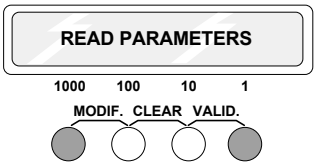


Ex: Copy the VVVF parameters at address 80 in the box

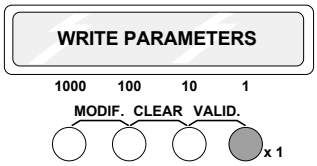
TRANSFER OF THE SETTINGS INCLUDED IN THE DIAGNOSTIC TOOL TOWARD THE VVVF.

⚠ ***WARNING:** this operation overwrite on the parameters included in the VVVF door drive* ⚠

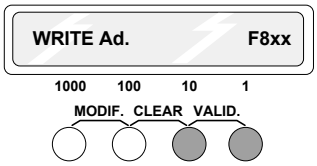
Press the 2 end buttons, you read, « **READ PARAMETERS** »



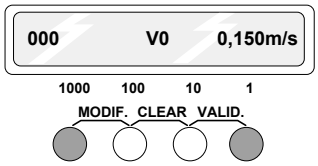
Display « **WRITE PARAMETERS** » using button **1**



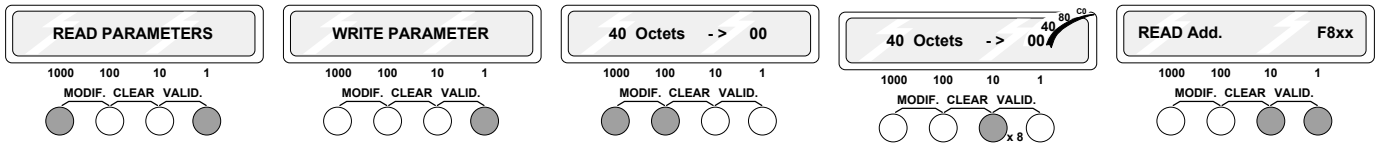
Validate by pressing the « **VALID** » button ..... Transfert



Press the 2 end buttons to return to normal mode



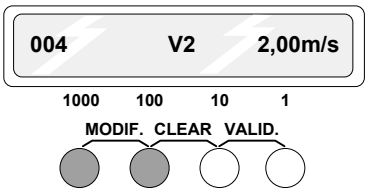
Note: You can transmit the VVVF parameters in the E²ROM of the box at addresses 00, 40, 80 or C0 in the box VEC03. For that, press the 2 end buttons, than on the button 1 to pass on « WRITE » mode than press the 2 « MODIF » buttons and than modify the right number at 00, 40, 80 or C0 with the 10 button than press « VALID » to validate.



Ex: Copy the Parameters memorised at address 80 in the box to the VVVF

TO REMIND YOURSELF OF THE ADDRESS

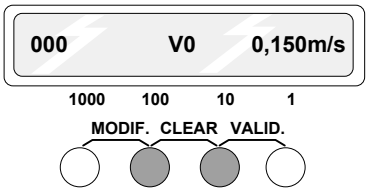
If you forget the address you are changing, or the previous value shown, just press both **MODIF** buttons.



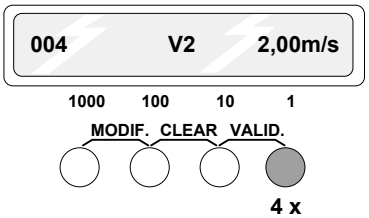
TO CHANGE THE PARAMETERS IN DECIMAL MODE

After selecting the required language (see previous page) you can access the parameters and change them if required.

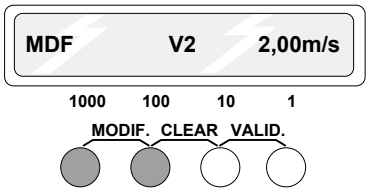
Reset the display by pressing both **CLEAR** buttons at the same time



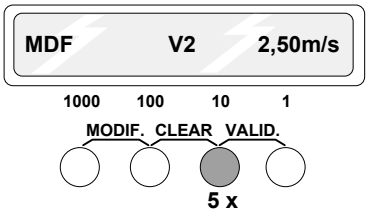
To change the **V2** speed for example, display address **004** by pressing button **1**



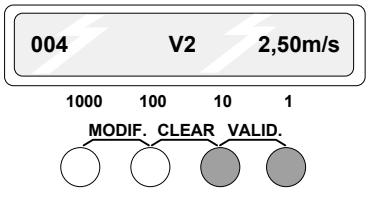
Press both **MODIF** buttons at the same time



Press button **10** 5 times to obtain the desired speed



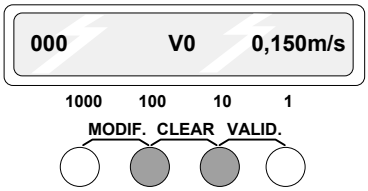
Register the new speed by pressing both **VALID** buttons at the same time



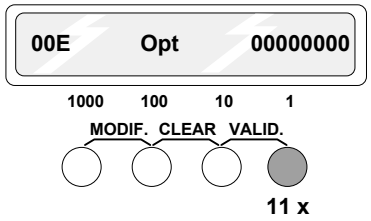
TO CHANGE THE PARAMETERS IN SEGMENT MODE

You can access the options using segments and change them if so desired.
Seg0 : IG, **Seg1 :** NOBAND, **Seg2 :** BATTERY, **Seg3 :** MLI,
Seg4 : RETSEC, **Seg5 :** APPDIR, **Seg6 :** D65°, **Seg7 :** ML220V

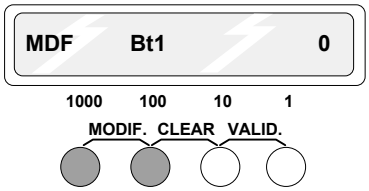
Reset the display by pressing both **CLEAR** buttons at the same time



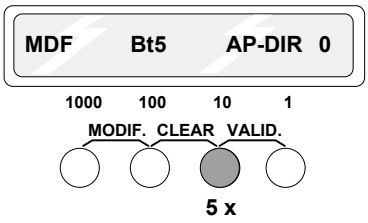
Display address **00E** by pressing button **1**



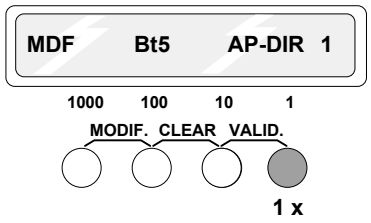
Press both **MODIF** buttons at the same time



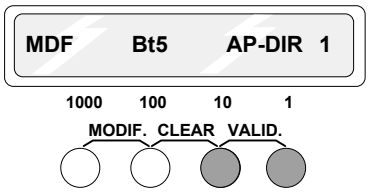
Press button **10** to obtain the required segment example: **Direct approach**.



Press button **1** to activate segment **5**.



Register the new data in the memory by pressing both **VALID** buttons at the same time.



CONTROLLER PARAMETER / DIAGNOSTIC COMMUNICATION DEVICE

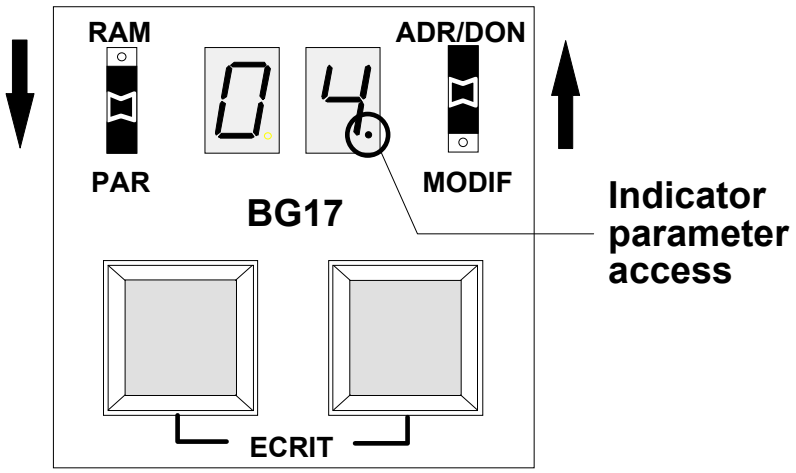


Figure 1 Position of the sliding switches for parameter mode

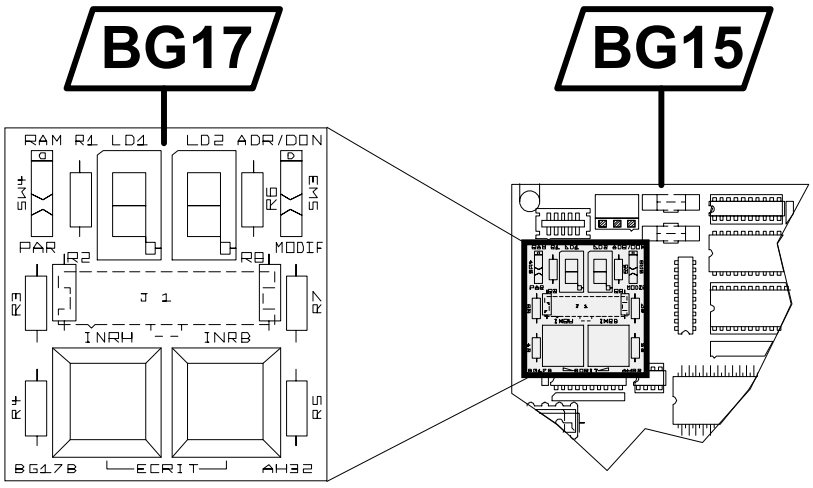


Figure 2 Position of the communication device

THE PARAMETERS AND THEIR MYSTERIES

This chapter contains information which will allow you to adapt the MB32 VECTOR equipment to the specific conditions of the lift on which it is installed.

This adaptation is controlled by ***parameters***, which you can modify according to your needs using the removable parameter / diagnostic[2] communication device as described below in the paragraph *Accessing the parameters*.

The parameters are memorised in a particular type of memory called an ***EEPROM*** (or E2PROM) which **keeps the information even when the equipment is switched off**.

Each parameter is linked to an **abridged name** and an **address** which corresponds to the position at which it is memorised in the EEPROM chip. As computers are strange creatures, the addresses are expressed in a particular numbering system, called an hexadecimal system (= a numbering system in base 16), which is made up of numbers (from 0 to 9) as well as letters (A to F). This peculiarity aside, you only need to consider the address as a marker (think of the game of battleships).

Accessing the parameters

As mentioned above, you can see and modify the parameters using the parameter/diagnostic communication tool; this consists of a **BG17** circuit board, which is plugged into the **BG15** (figure 2, page 31).

The **BG17** board is made up of 2 displays with 7 segments, 2 push buttons and 2 sliding switches (figure 1, page 31).

To access the **parameters**, the **left-hand sliding switch** must be at the **bottom**; this position is shown as **PAR** (as in PARAMETER) on the board.

When the sliding switch is in this position, the decimal point on the right-hand display lights up to remind you that you are looking at or modifying the parameters.

2 Note for those used to using our previous manuals :
The term "parameter/diagnostic communication device" replaces the old term "communication tool" to avoid any risk of confusion with the equipment used to communicate (directly or by telephone link) with the computer system (telesurveillance and/or telediagnostic).

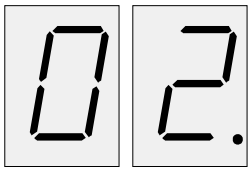
DISPLAY MODES

Depending on the information to be displayed, the MB32 VECTOR uses the most appropriate method of showing the information.

Digit Mode

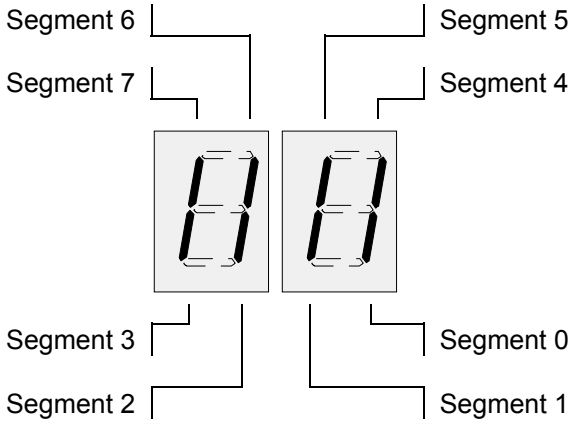
The **digit mode** is useful to read or programme times, or the number of floors, or the number of doors for example.

Example: If we have 2 door operators, we program **02** at address **03**.



Segment Mode

The **segment mode** uses the individual vertical segments on the display as shown below.



This mode is useful to activate or deactivate different functions:

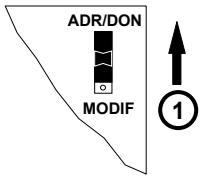
Example: To activate the "flashing direction arrows" option, segment **5** at address **08** must be **ON**.

The segment mode is also useful to view the state of inputs and outputs:

Example: To check that the **C0** input (car call to level 0) is correctly read by the MB32 VECTOR, you need to look at segment **0** at address **00**.

To change from **digit** to **segment mode** and vice-versa, slide the ADR-DON-MODIF switch to ADR/DON and press both buttons at the same time, and release.

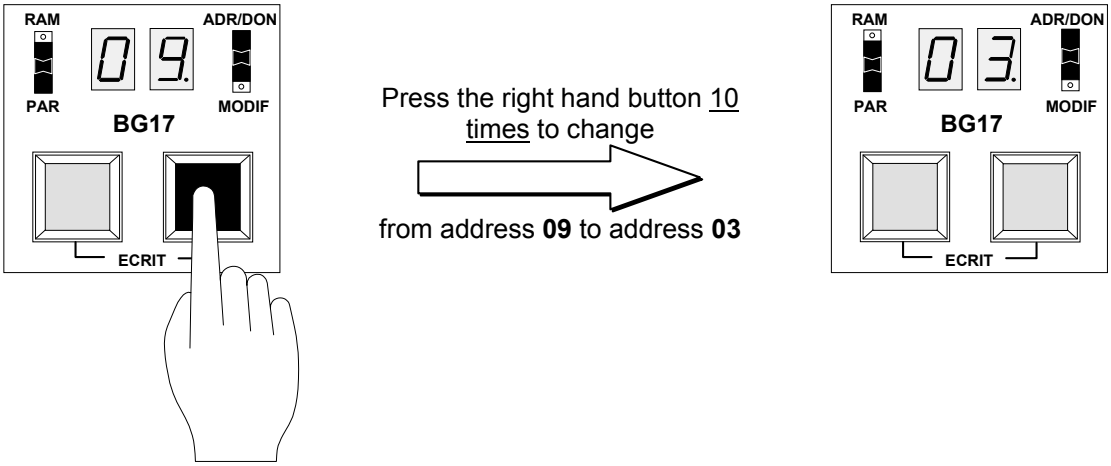
To change the address or to view the inputs, outputs and parameters



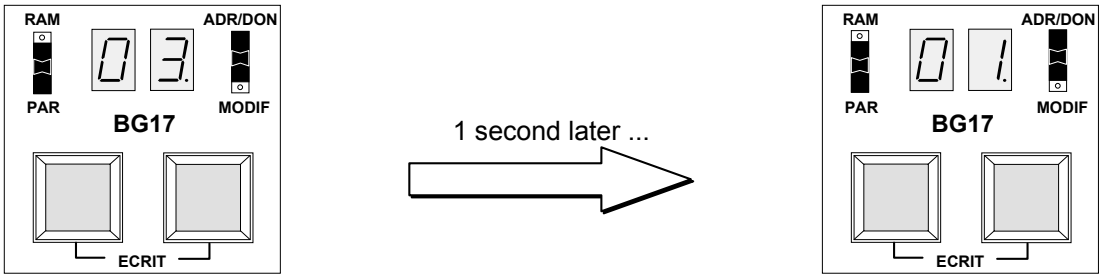
❶ Check that the ADR/DON-MODIF switch is on ADR/DON.

❷ Scroll to the desired address (eg **03**) by pressing the push buttons below the display.

Press either button and the address will be displayed. Each time you press a button the value displayed will be increased by 1.

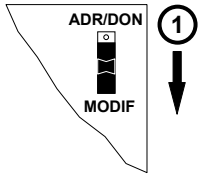


Leave the buttons for 1 second, and the contents of the selected address will be displayed indefinitely.

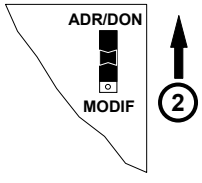


To remind yourself of the current address

If you forget the address you are at,

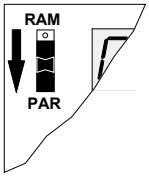


❶ Slide the ADR/DON-MODIF switch to MODIF.



❷ Then slide it back to ADR/DON. This will show you the address for 1 second, and then the contents.

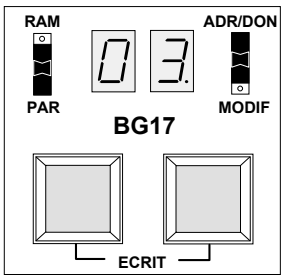
TO CHANGE THE PARAMETERS



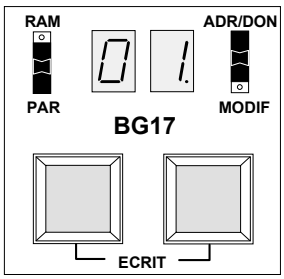
Check that the RAM-PAR switch is to PAR.

A) In digit mode

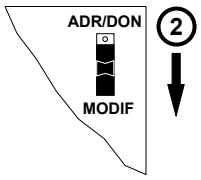
❶ Go to the parameter address as explained on the page before (e.g. **03**).



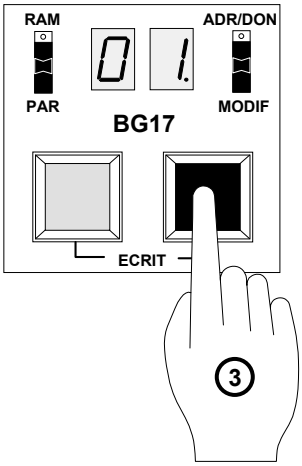
1 second later ...



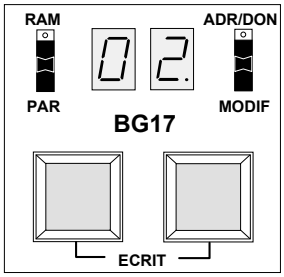
❷ Slide the ADR/DON-MODIF switch to MODIF.



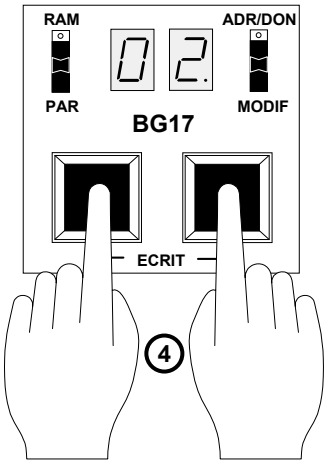
❸ Use the push buttons to increase/decrease to the new value (e.g. **02**).



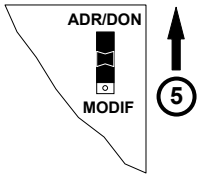
Push <u>once</u> on the right-hand button
to change the value from **01** to **02**.



❹ Register the new value by pushing and releasing both buttons <u>at the same time</u>.



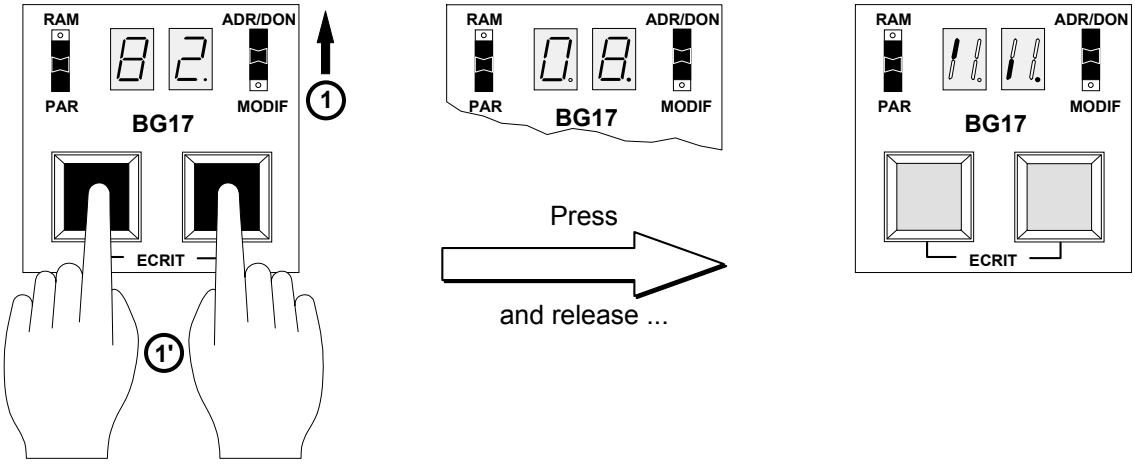
❺ Slide the ADR/DON-MODIF switch back to ADR/DON. Address **03** will show followed by its value **02**.

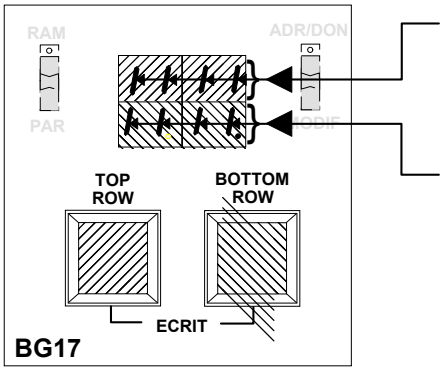


B) In segment mode

❶ Go to the parameter address as previously explained (e.g. **08**).

If the contents are displayed as a figure (**82** in the example below), check that the right hand switch is in the upper position, and press both buttons at the same time; this will pass you into **segment mode**. The current address will be displayed followed by the contents shown in segments. If not pass onto stage ❷.



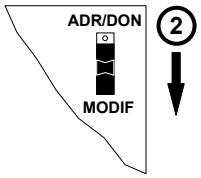


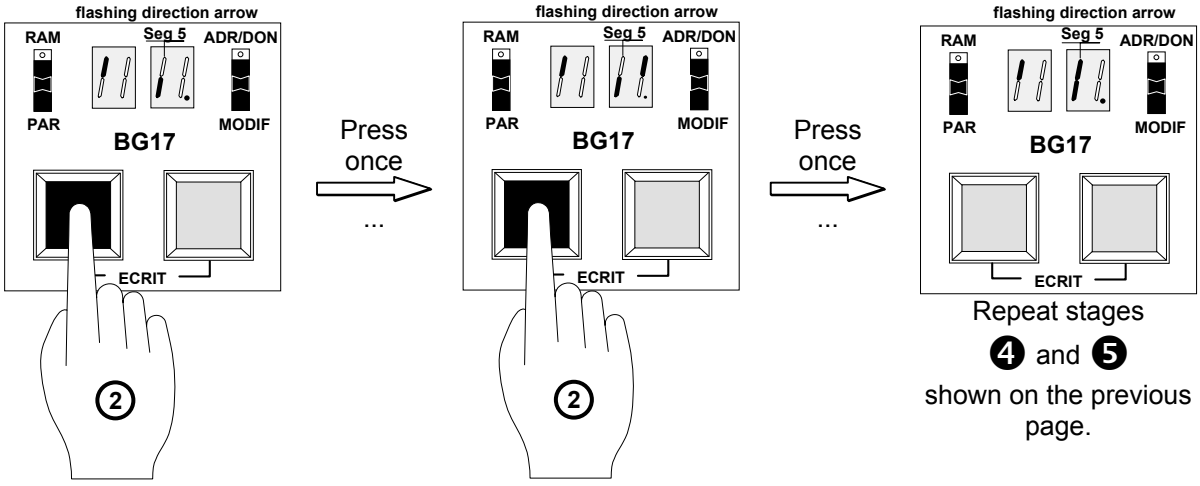
- The **left-hand button** acts on the **TOP ROW** of segments (4 to 7),
- The **right-hand button** acts on the **BOTTOM ROW** of segments (0 to 3).

❷ Slide the ADR/DON-MODIF switch to MODIF.

In our example we want to activate the "**flashing direction arrow**" function (address **08** segment **5**).

We have to **light up** segment **5** while keeping on all other segments in their present state



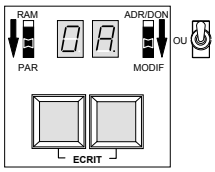


CONCERNING THE ILLUSTRATIONS (1/2)

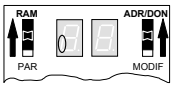
Each connection that you will have to carry out is accompanied by an explication and an illustration. The illustrations try to summarise in one page all the important elements which will be necessary for you to carry out the corresponding function; i.e.:

- The **PARAMETERS** which you need to check or adjust,
- The **CONNECTIONS** themselves,
- The corresponding **VARIABLES** or **INPUTS/OUTPUTS**,
- The **CONSEQUENCES** of any possible **ANOMALY** connected with the function in question.

In order to achieve this goal (or at least to try to) this manual uses the following symbols:



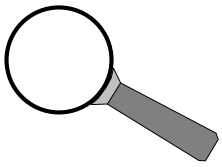
View of the parameter/diagnostic tool when you should check or modify a **parameter's** value. Note that the push buttons are shown in this case. The figure also specifies the position of the sliding switches on the BG17 board.



View of the parameter/diagnostic tool when you should check the state or value of a **variable**. Note that the push buttons are not shown in this case. The figure also specifies the position of the sliding switches on the BG17 board.

XXXXXX
Add. YY
Seg. Z

Name, address and possible segment number, for the variable or parameter shown in one of the 2 preceding figures.



You should **check** the value or state of the parameter indicated, and of course changes the parameter if it does not correspond to the value or state indicated.

You should **adjust** the value of the parameter indicated. The unit used (second, 1/10 second, millimetre, etc...) and the base (decimal or hexadecimal) are displayed.
Note: You will find all useful information about the bases and the conversions between bases in the chapter dedicated to the parameters.

Don't worry, be happy!

The parameter shown is at the **right** value, or the variable shown reflects a **normal** operation of the function in question.

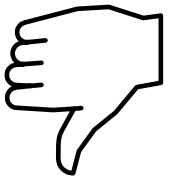
Now worry!

The parameter shown is the wrong value, or the variable shown reflects a breakdown of the function in question.

CONCERNING THE ILLUSTRATIONS (2/2)

Keep an eye on this!

This symbol indicates that you can see the state of the function in question. It is used instead of the "smilies" when there is no correct or incorrect state strictly speaking. This would be the case for example with the contact authorising movements when in full speed inspection mode.

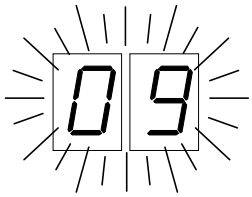


Fault!

The wiring of the current function has caused a fault code to be displayed on the parameter/diagnostic tool.

Permanent fault!

This symbol accompanies the above symbol, when the wiring of the current function causes the permanent stop of the lift. In this case, the only way of putting the lift into service is by an intervention of you (or by cutting the power supply).



Fault code!

The fault code when there is a problem with the wiring of the current function.

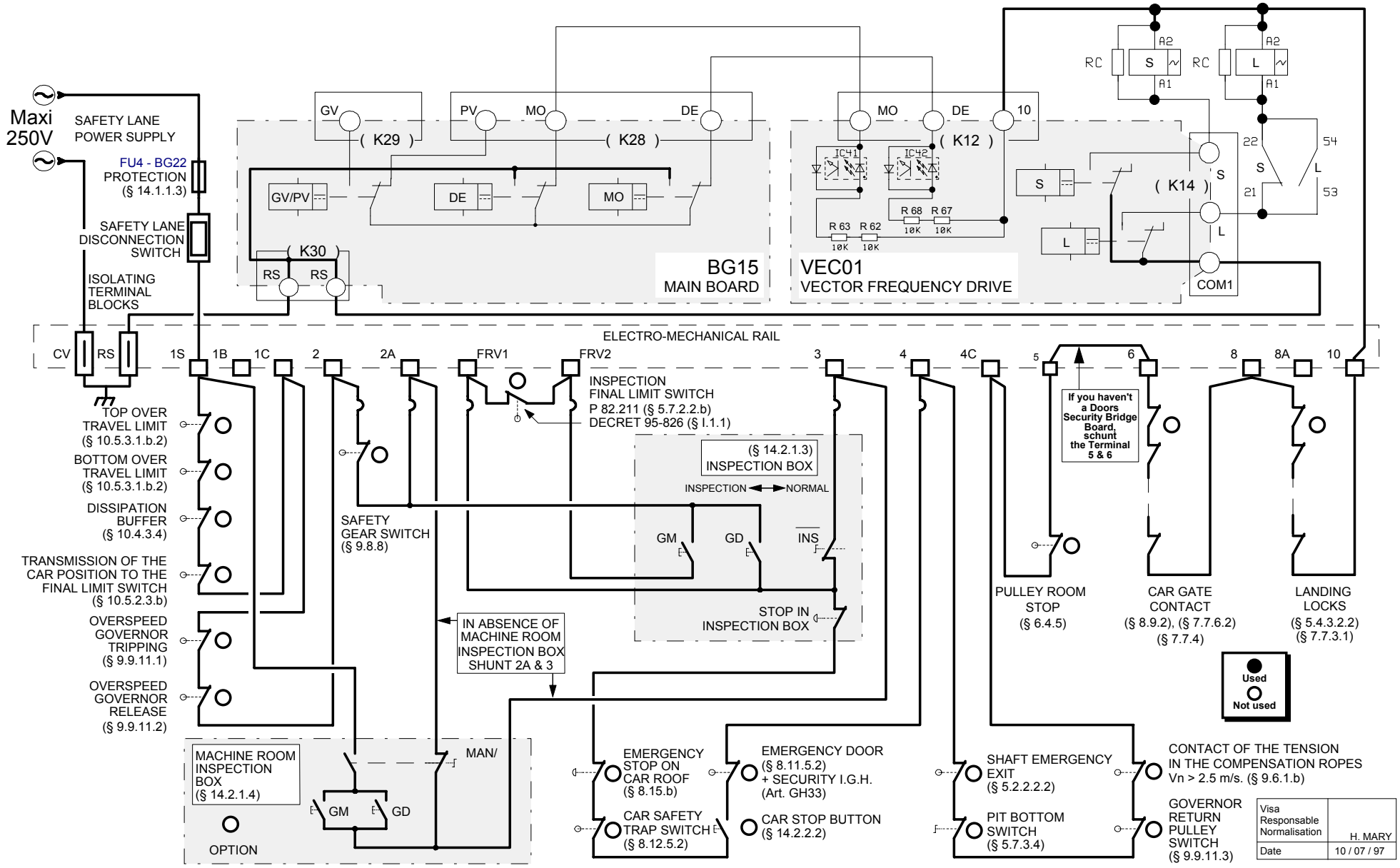
CHAPTER II

INSTALLATION & CONNECTING THE SAFETY

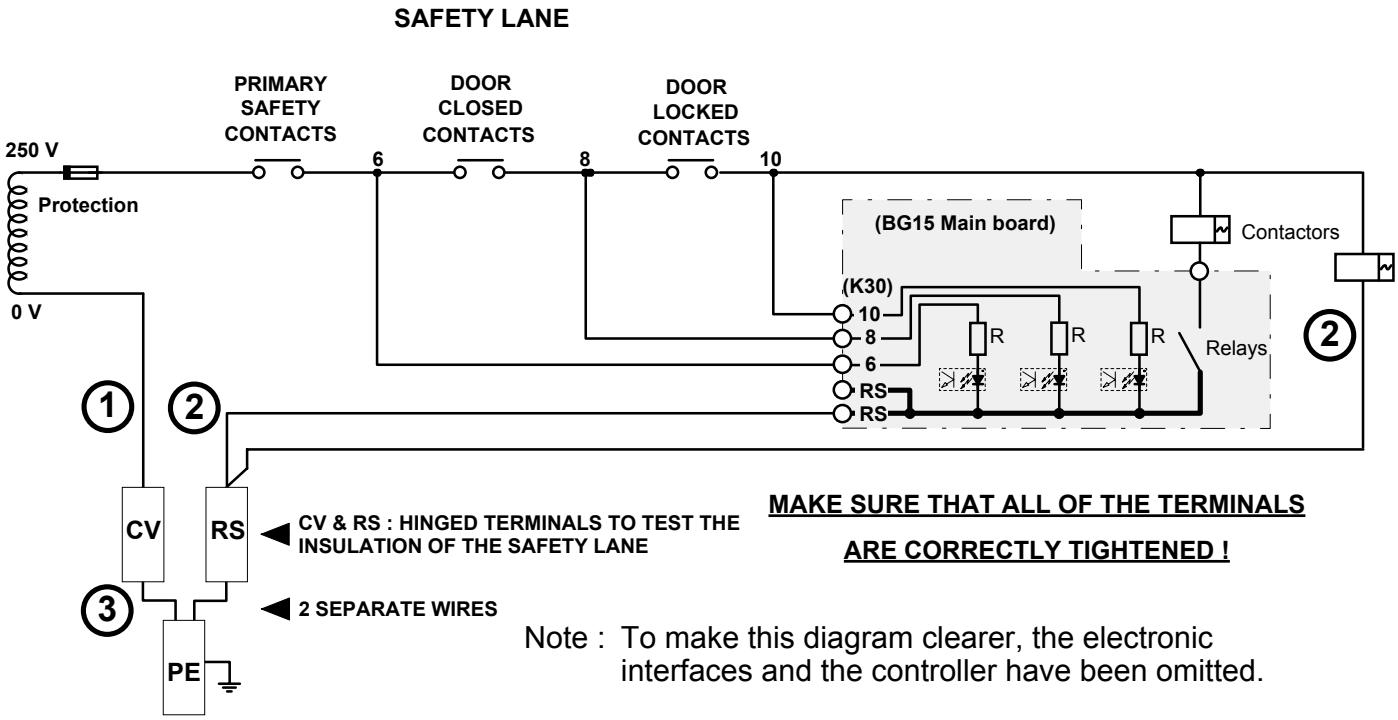
WARNING!

Every intervention, connecting, on site maintenance, in the controller must justified a systematic cut of the main machine room switch provided by the EN 81 standard § 13.1.1.1.

CONNECTING THE SAFETY LANE WITH AUTOMATIC DOORS AND MACHINE ROOM INSPECTION BOX



INSTRUCTION FOR CONNECTING ANY DEVICES TO THE SAFETY LANE



Connection of the interfaces to he lift's safety lane

① The **0 V** of the secondary winding of the transformer which powers the safety lane must only **be connected to the CV hinged terminal**, by a wire whose the colour is **neither green and yellow, nor blue**.

Only the hinged terminal mentioned above should carry the label **CV**; no other terminal in the controller should have this label.

② With the exception of movement contactors (connected to the controller relays) **ALL** devices (contactors, electronic interfaces) with a pole connected to the safety lane, must have their other pole connected **uniquely to the RS hinged terminal** (**R**eference **S**ecurities), by a wire whose the colour is **neither green and yellow, nor blue**.

③ The hinged terminals **RS and CV must never be wired together**; they must be linked to the protection conductor PE **by 2 separate wires**, whose colours must be **neither green and yellow, nor blue**.

MEASUREMENT OF THE INSULATION OF THE SAFETY CHAIN

EN 81 standard § 13.1.3 a), state that the minimum insulation resistance of the safety chain shall be 500 000 Ω [1]:

13.1.3 Insulation resistance of the electrical installation (CENELEC HD 384.6.61 S1)

The insulation resistance shall be measured between each live conductor and earth.

Minimum values of insulation resistance shall be taken from **table 5**.

Nominal circuit voltage V	Test voltage (D.C.) V	Insulation resistance MΩ
SELV	250	≥ 0,25
≤ 500	500	≥ 0,5
> 500	1000	≥ 1,0

When the circuit includes electronic devices, phase and neutral conductors shall be connected together during measurement.

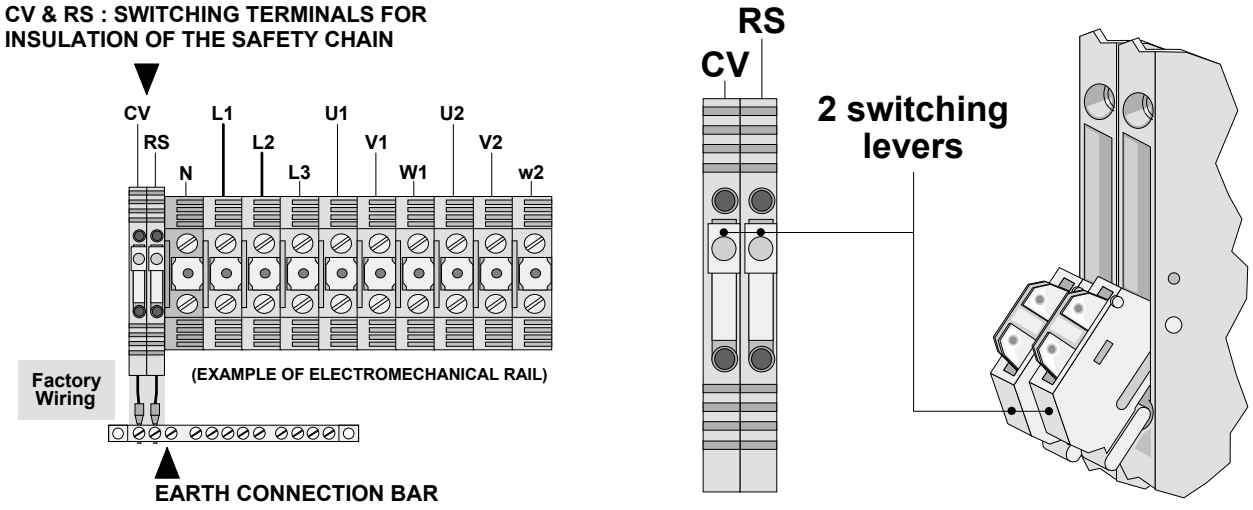
In order to facilitate the measurement of the insulation resistance of the safety chain ask by EN 81-1 Annex **D** § D.2 f) 1) for electric lifts and EN 81-2 Annex **D** § D.2 e) 1) for hydraulic lifts, ***AUTINOR*** controllers are provided with switching terminals named **CV** and **RS**.

These two are Weidmüller model WTR 2.5, reference 101110 which electrical characteristics, according IEC 947-7-1 are:

Tension 500 V, Intensity 16 A, Section 2,5 mm²

For an easy work, the terminals are installed close together on the electromechanical rail and each terminal have a yellow switching lever; when the two levers are in the off position, all elements of the controller related to the safety chain are disconnected from the earth.

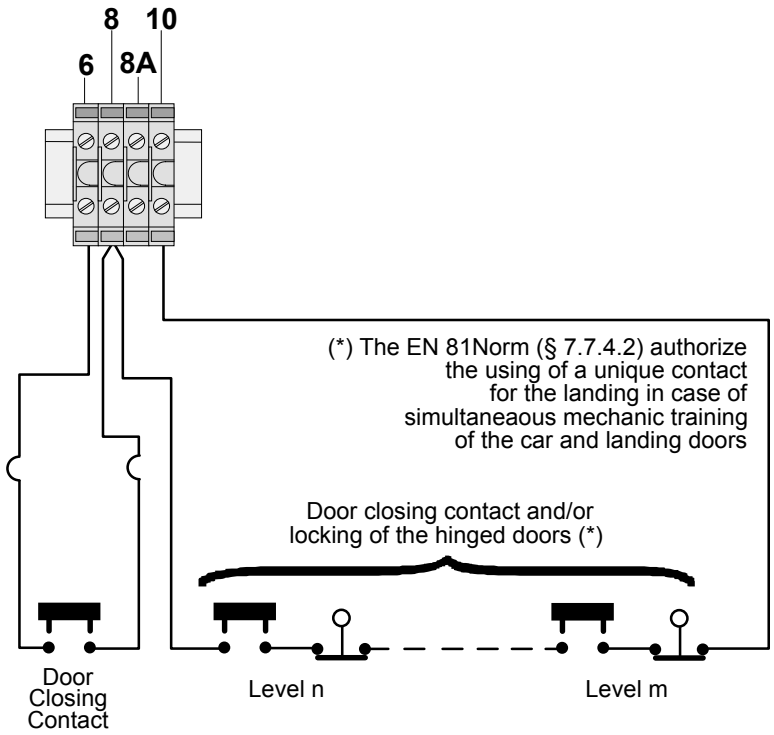
TO AVOID DAMAGE TO ELECTRONICS, PUT THE LEVERS OF THE 2 TERMINALS CV AND RS IN THE OFF POSITION BEFORE MEASURING INSULATION!



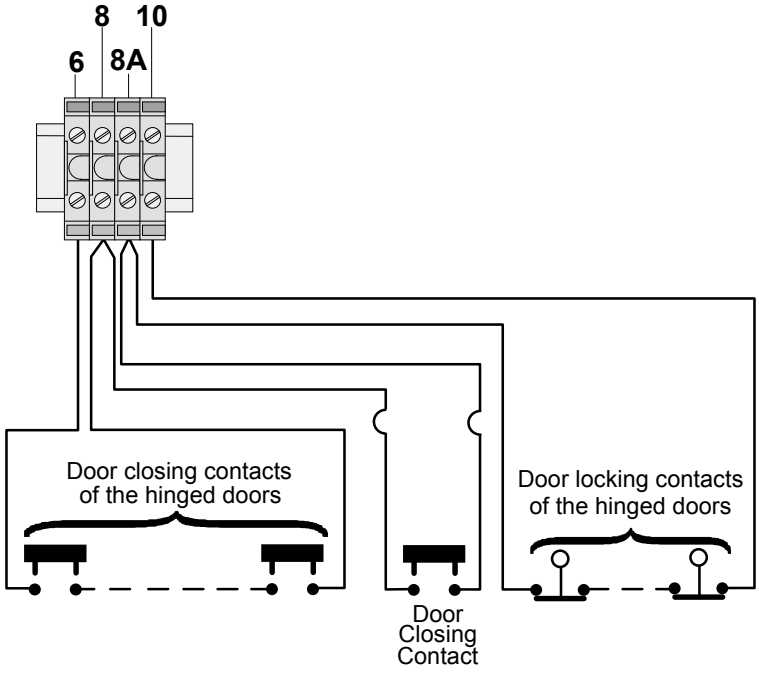
Measurement of the insulation resistance of the safety chain: example for MB32 controller.

1 These values are the same to those indicated in table 61 A of standard NF C 15-100, identical to the values indicated in publication CEI 364-6, not yet harmonised on the level of CENELEC (but which were the subject of the project of harmonisation PrHD 384-6 in Mars 1990).

CONNECTION OF THE DOORS SAFETY CONTACTS BETWEEN 6 AND 10 (1/2)

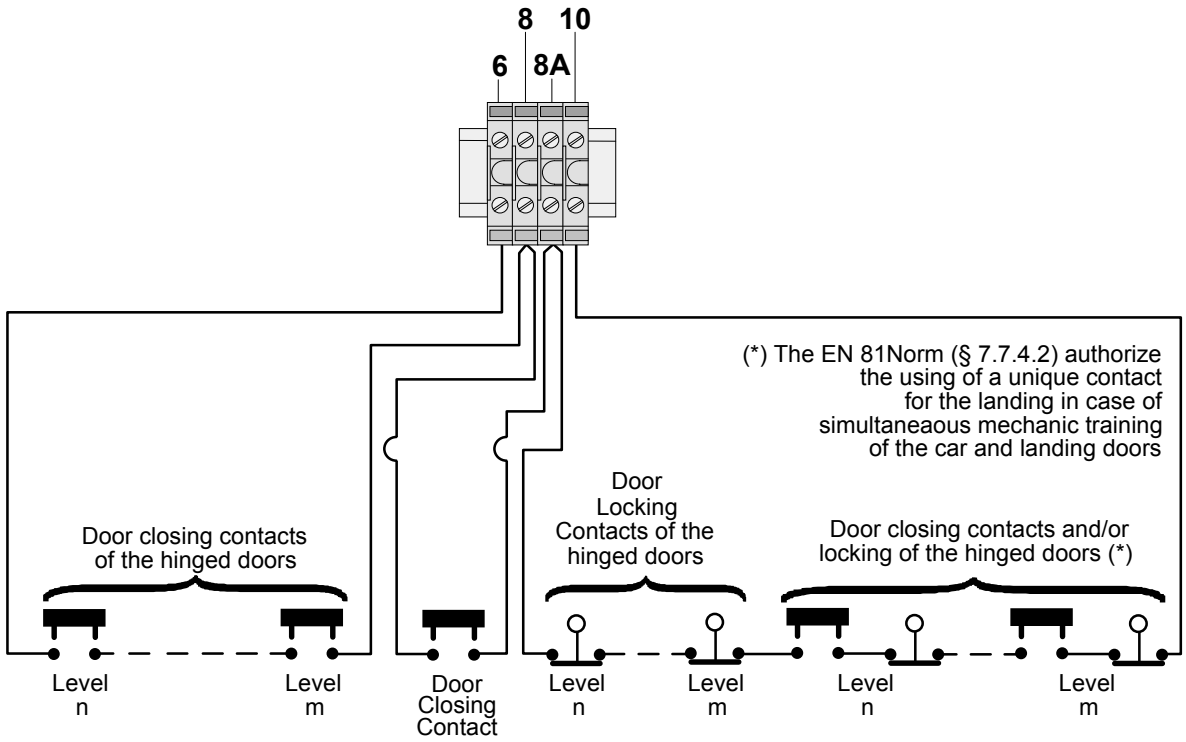


In case of Car and Landing Automatics doors Connecting

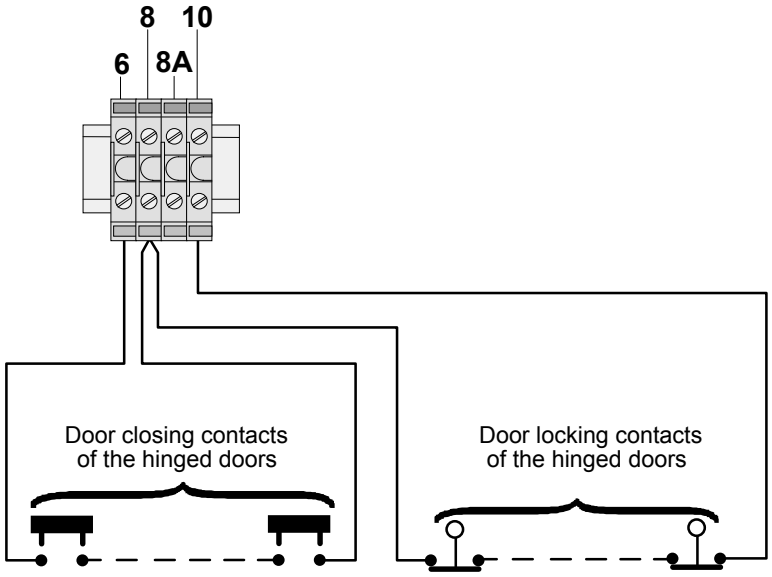


In case of hinged doors and automatic car door

CONNECTION OF THE DOORS SAFETY CONTACTS BETWEEN 6 AND 10 (2/2)



In case of mixed service automatic car door, hinged doors or automatic at some levels



In case of hinged door without car door (flush shaft)

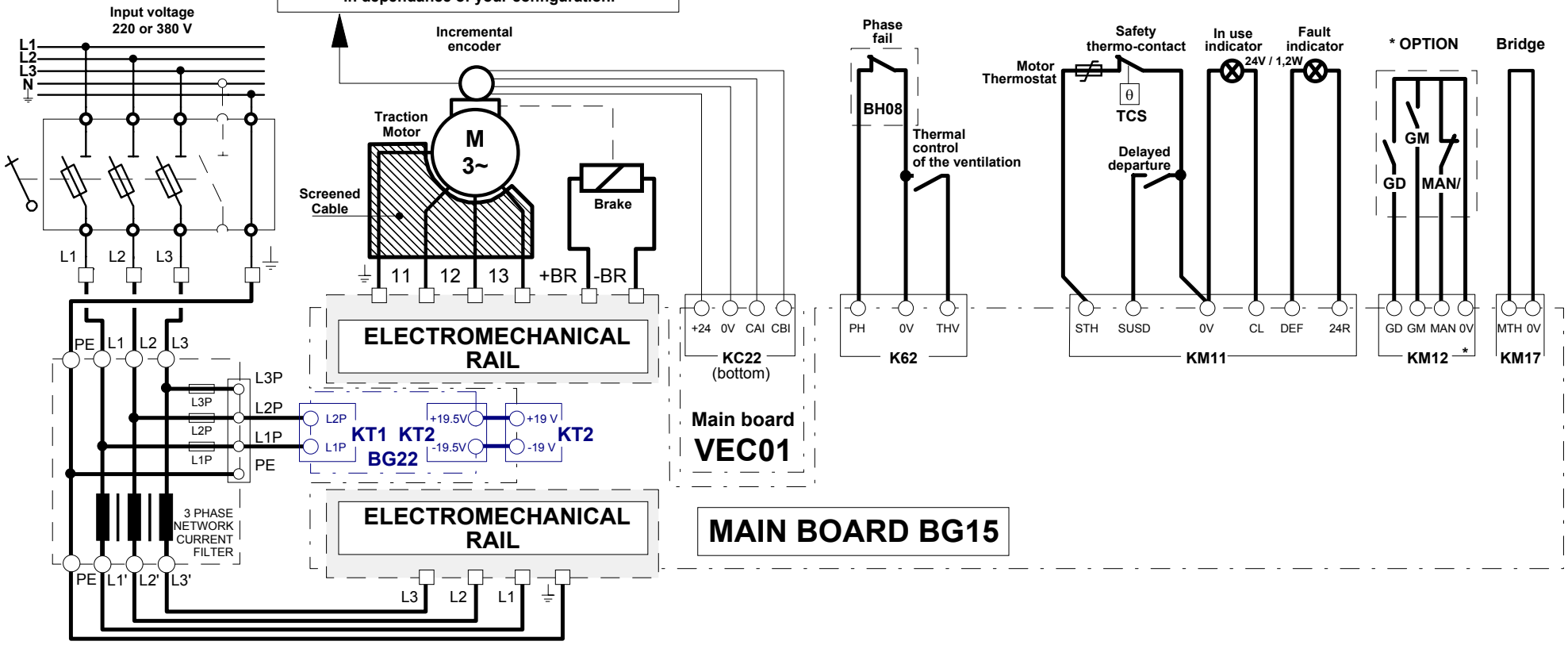
CHAPTER III

INSTALLATION
&
CONNECTING
IN MACHINE ROOM

CONNECTING OF MACHINE ROOM

	INCREMENTAL ENCODER
	HENGSTLER
+24	RED
0V	BLACK
CAI	WHITE
CBI	GREEN

Cut the wires which are not used.
Screening cable do not connect.
Wires CAI and CBI should be crossed in dependance of your configuration.



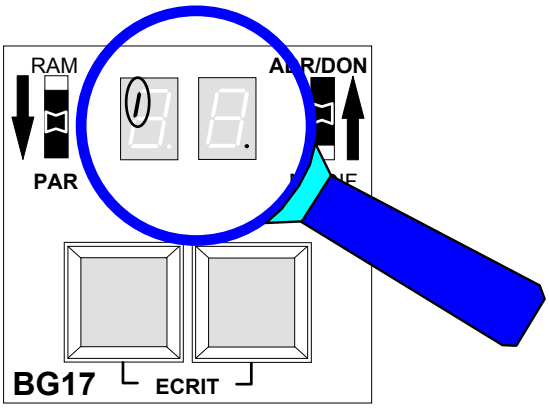
MOTOR SCREENING CABLE

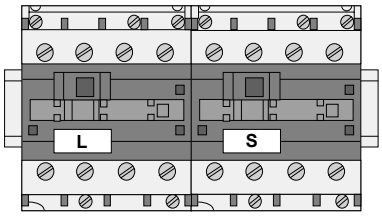
RECAV1

RE positioning in speed V1?

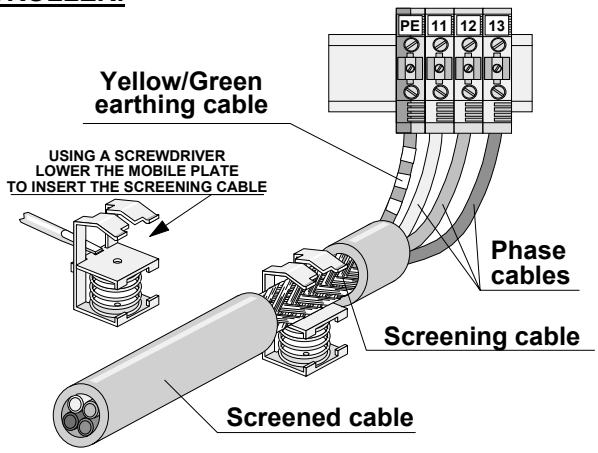
Add. 08

Seg. 7 **ON**

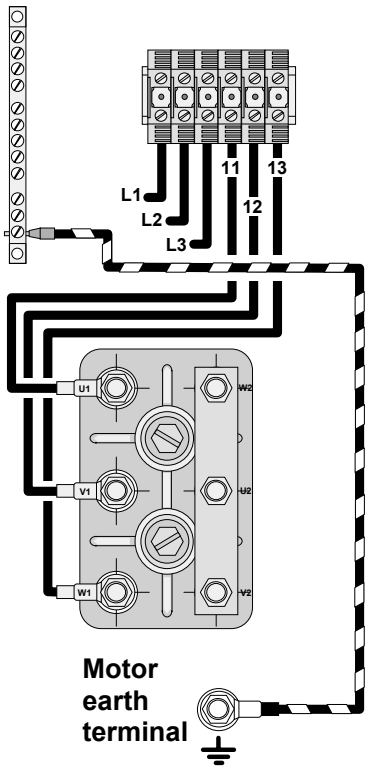




CONTROLLER:



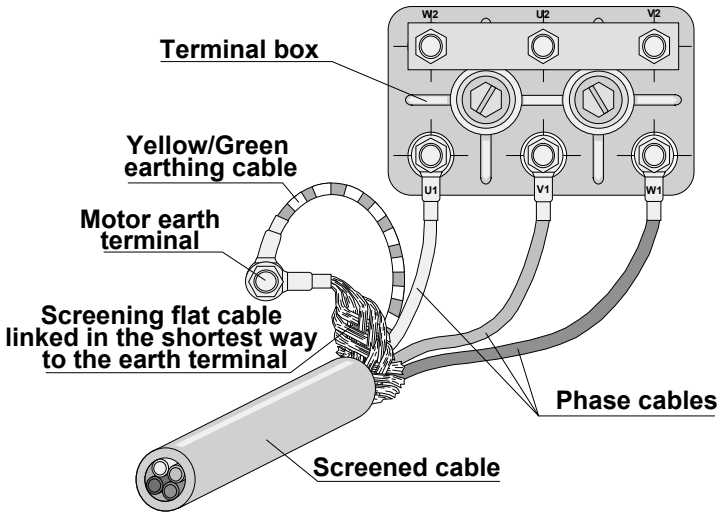
Note: Keep the motor cable as far apart from the power cable as possible, inside as well as outside the controller.



Y

CONNECTION

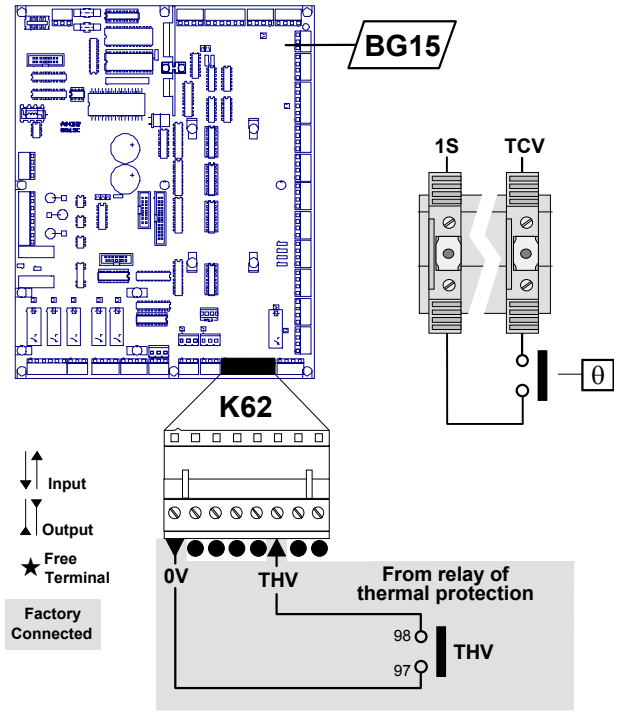
MOTOR:



Star connection
Motor 220 V / 380 V Mains 380 V

Note: The cables should only be separated from the screening once inside the terminal box.

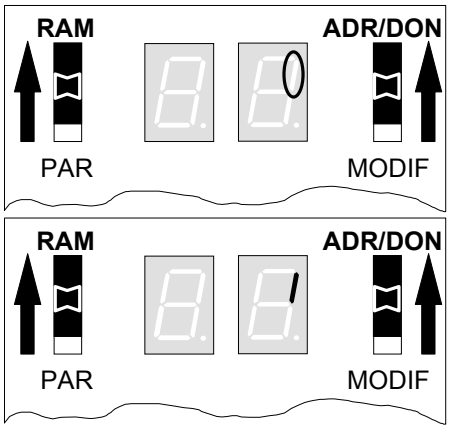
MOTOR VENTILATION
DETECTION BY THERMO-CONTACT



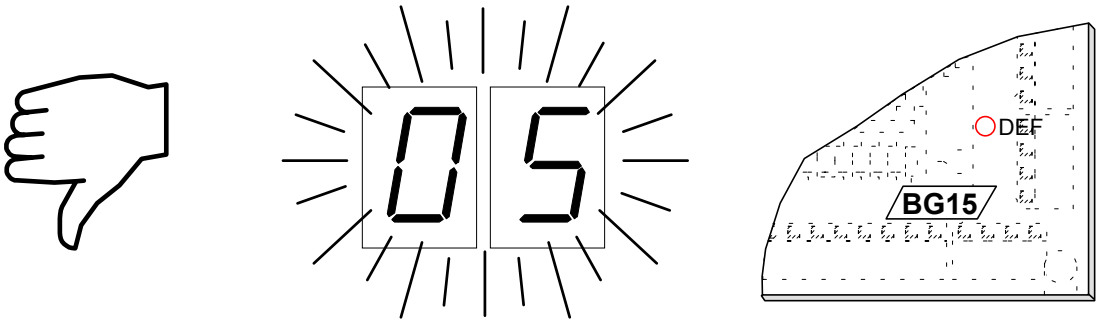
Motor ventilation command - Motor over heating Detection by thermo-contact - Thermal control of the ventilation

Connection diagram
« Chapter VII Electric diagrams »

THV
Fan THermistor
Add. 0d
Seg. 4

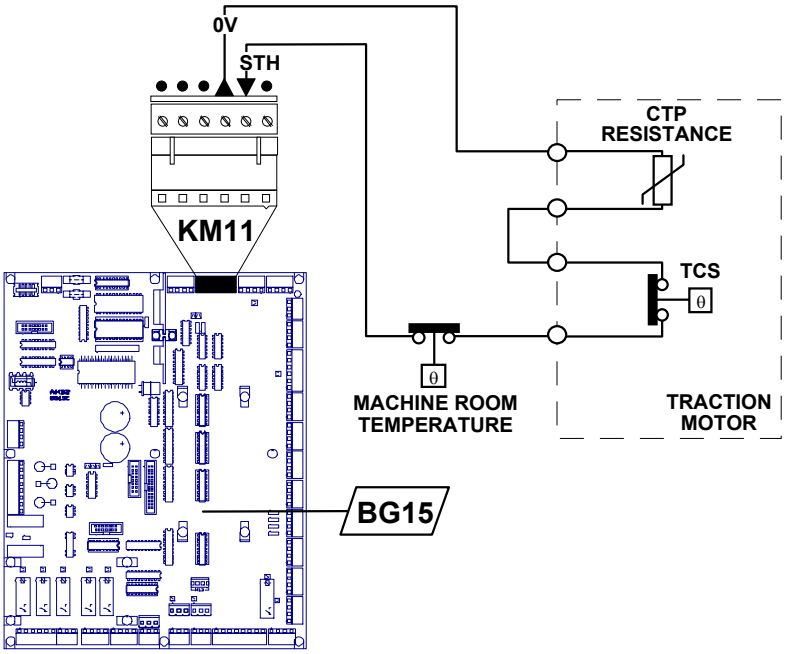


Viewing the fan thermistor state



Consequences of the ventilation motor starting

THERMAL PROTECTION OF THE MOTOR & CONTROL OF THE MACHINE ROOM TEMPERATURE



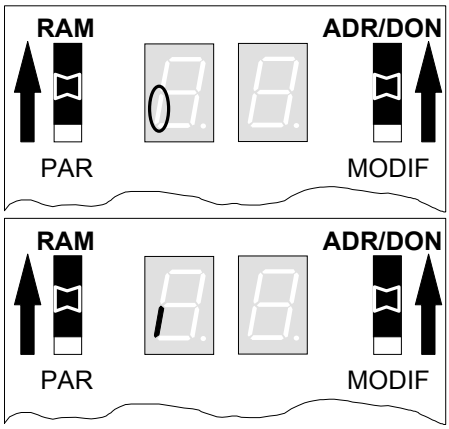
Motor protection against overloads: Connection of embedded thermistor and /or thermo-contact & control of the machine room temperature by thermo-contact

STH

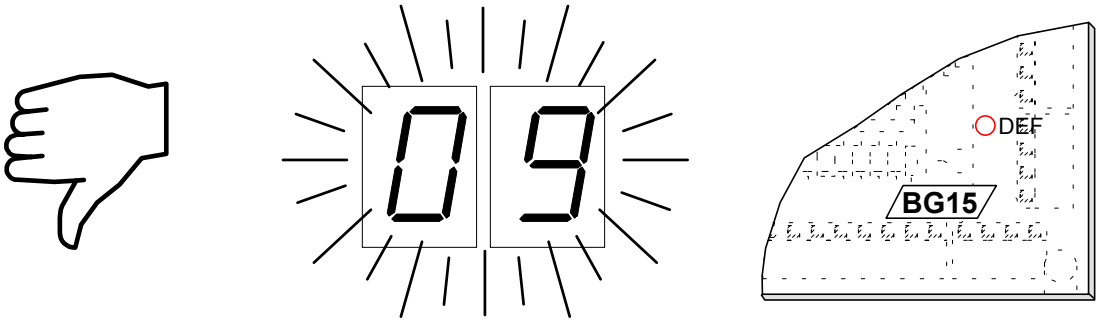
THermic probe

Add. 12

Seg. 3



Viewing motor thermal protection state or thermic probe state



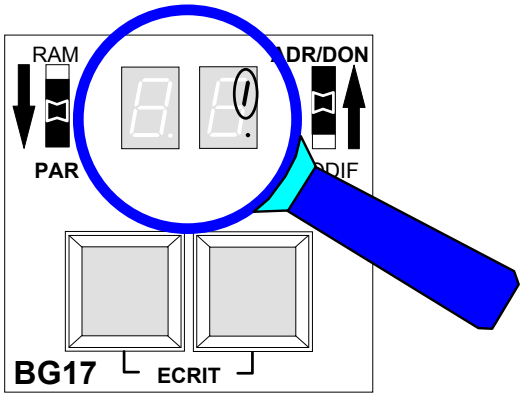
Consequences of an over heating of the motor or machine room

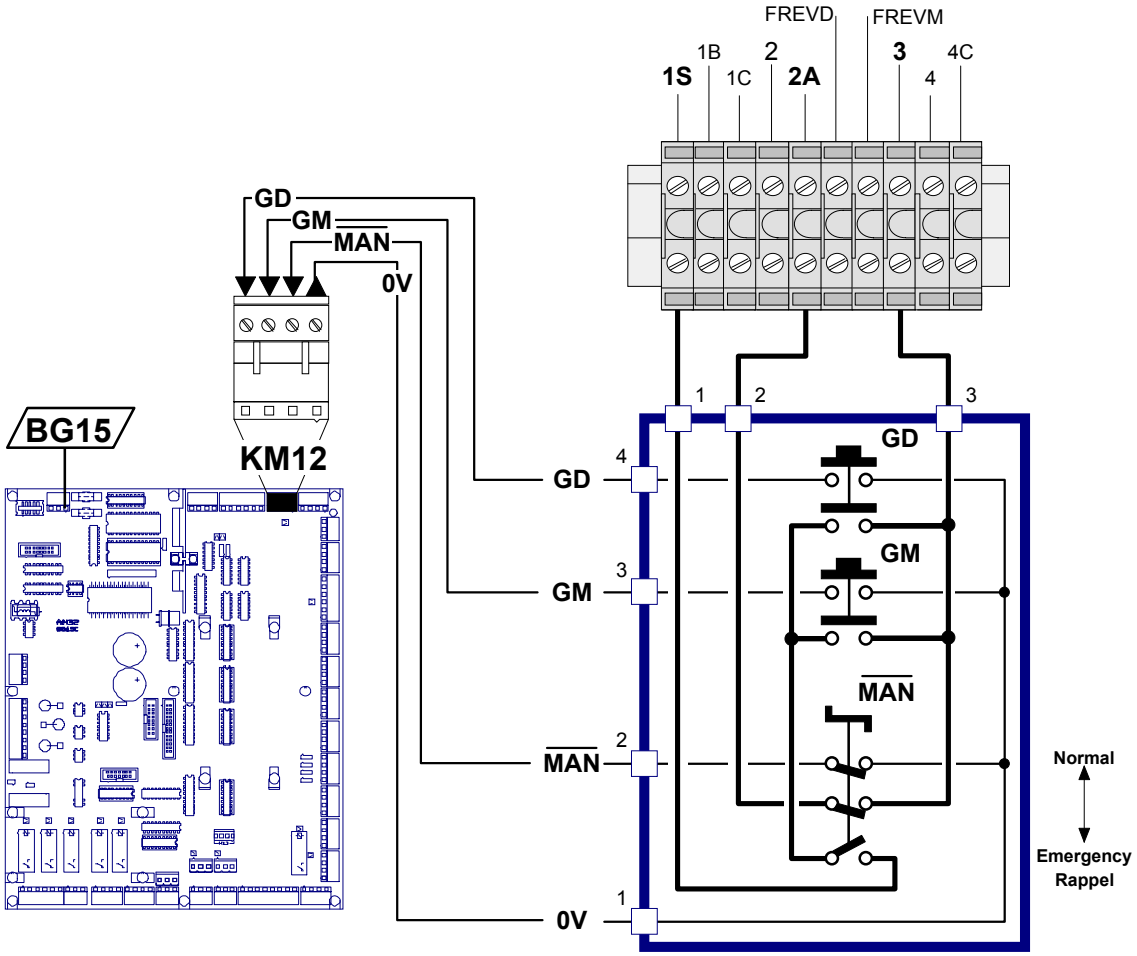
EMERGENCY ELECTRICAL OPERATION (1/2)

OptMan

Homing control option?

Add. 07
Seg. 4



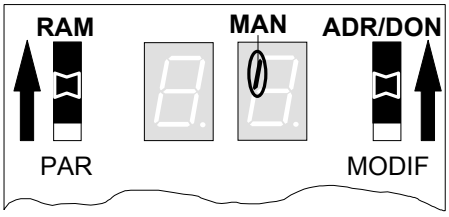


Connection of the emergency electrical switches.

MINIBLOC

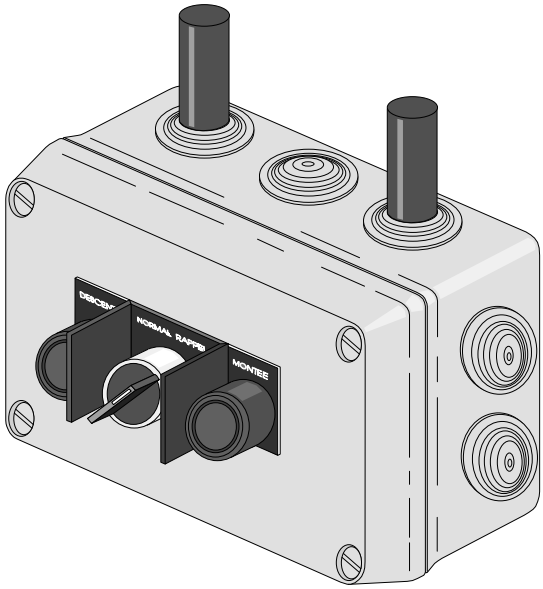
Emergency operation

Add. FF
Seg. 5



Viewing of emergency electrical operation

EMERGENCY ELECTRICAL OPERATION (2/2)



EUROPEAN STANDARD EN 81-1

Notices, markings and operating instructions

15.1 General provisions

All labels, notices, markings and operating instructions shall be indelible, legible and readily understandable (if necessary aided by signs or symbols). They shall be untearable, of durable material, placed in a visible position, and written in the language of the country where the lift is installed (or, if necessary, in several languages).

§ 15.4.3 In the machine room, there shall be detailed instructions to be followed in the event of lift breakdown, particularly concerning the use of the device for manual or electrical emergency movement, and the unlocking key for landing doors.

Emergency electrical operation switches box

MAN, GM & GD

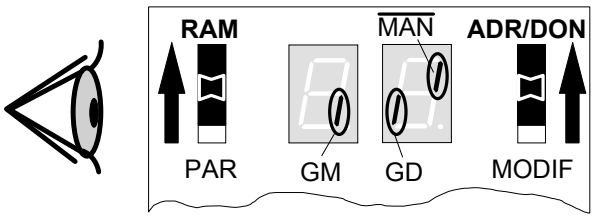
Emergency operation

Up

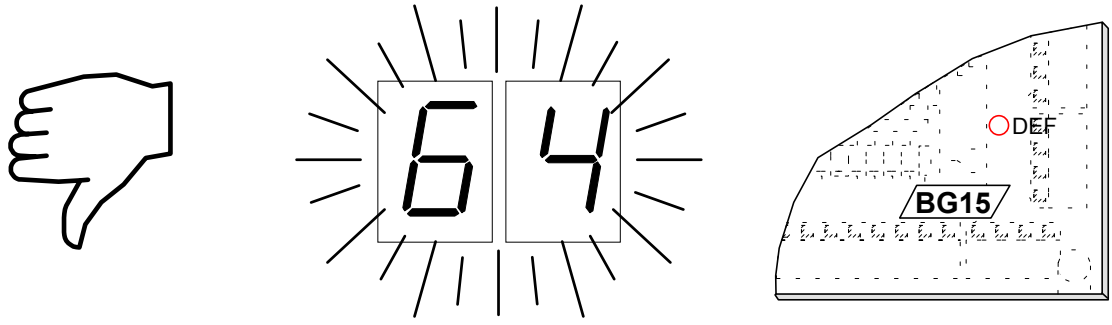
Down

Add. 0C

Seg. 4, 2 & 1

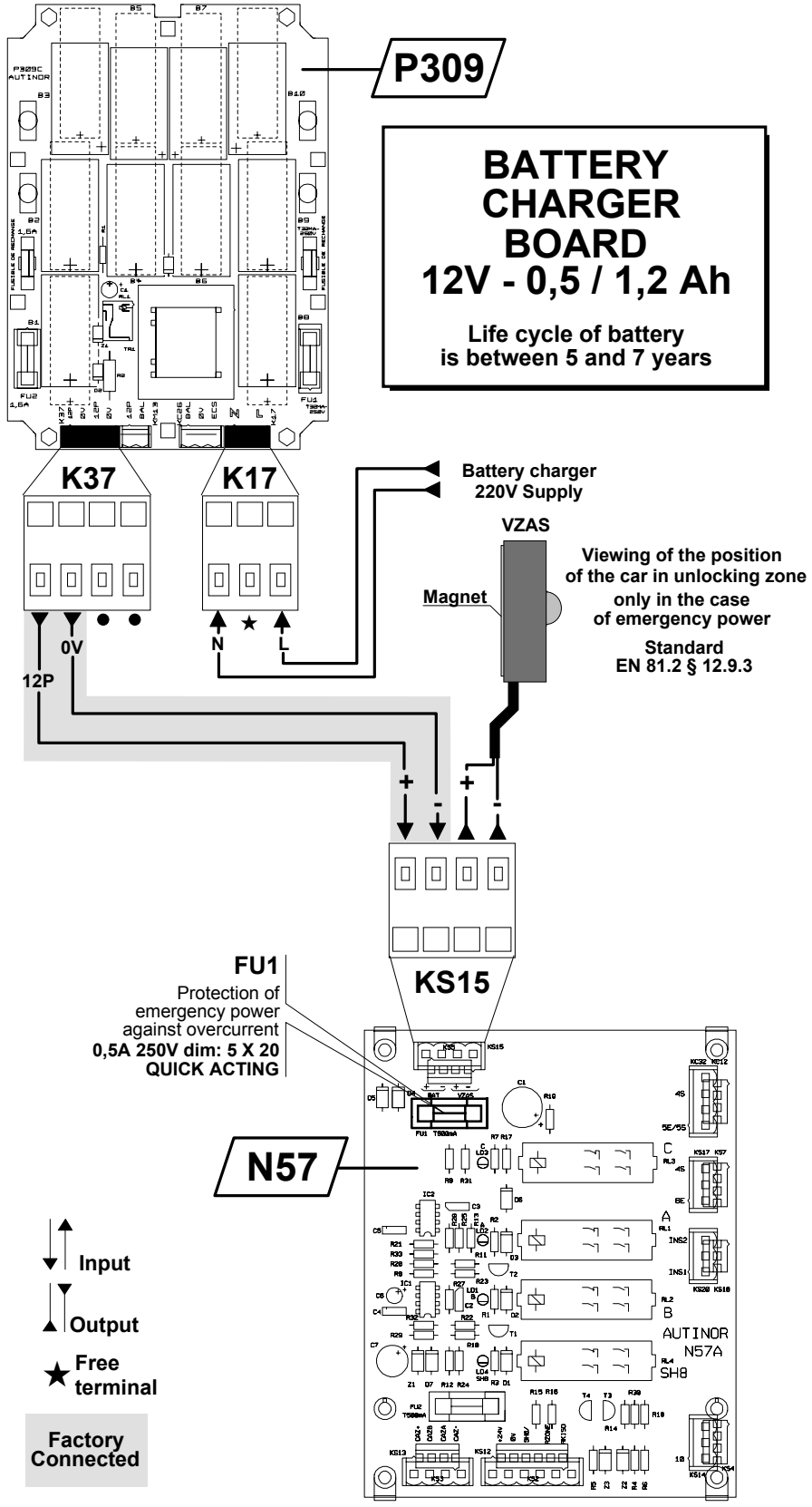


Viewing of emergency electrical operation switches



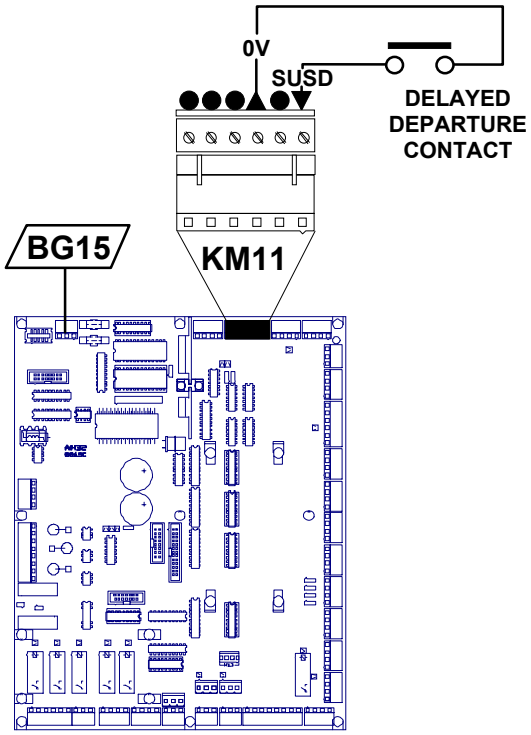
Consequences of simultaneity of emergency electrical operation and inspection operation

VIEWING OF THE UNLOCKING ZONE



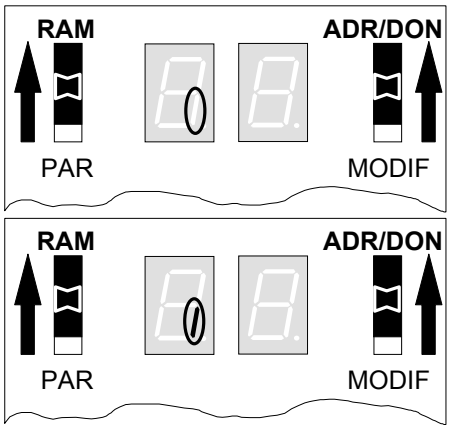
Viewing of the unlocking zone in emergency power.

DELAYED DEPARTURE

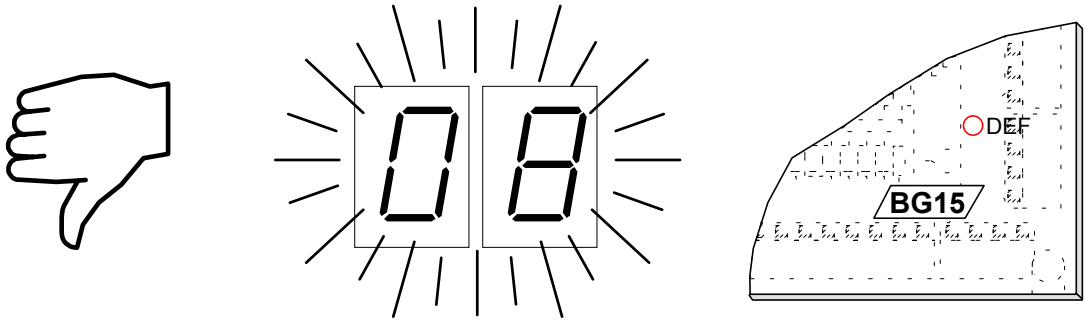


Connection of the delayed departure contact.

SUSD
Delayed departure
Add. 0E
Seg. 2

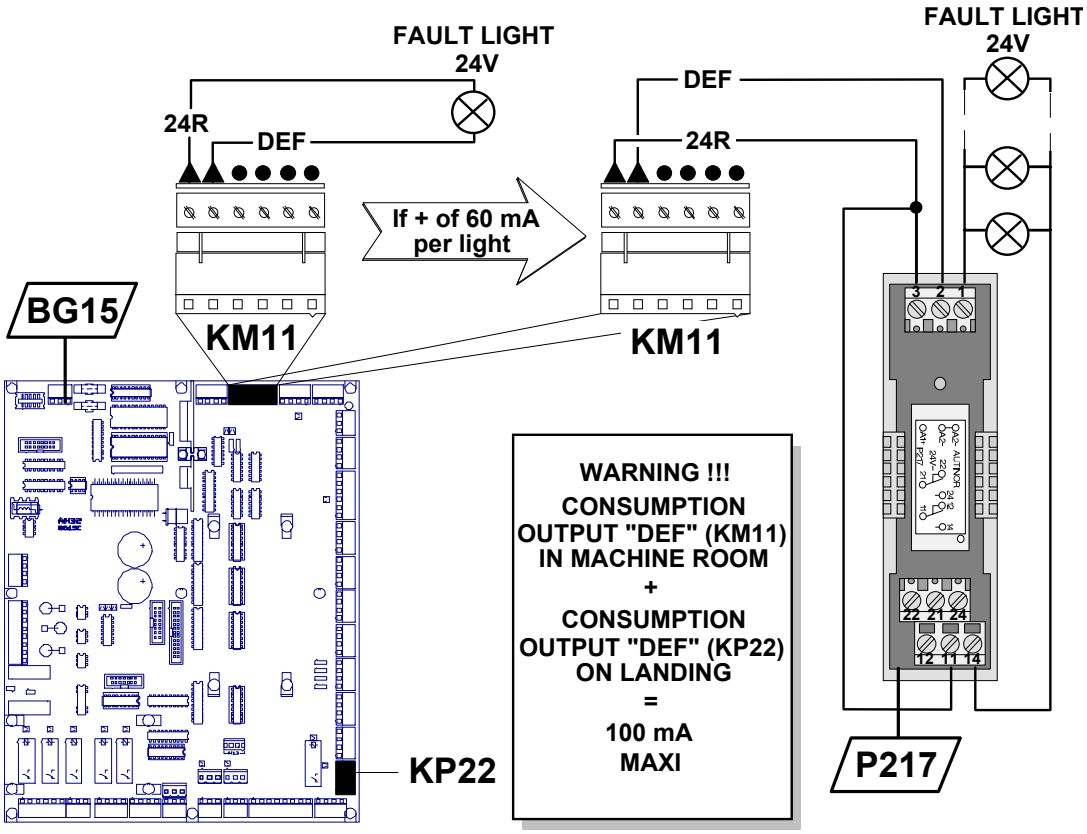


Viewing of the delayed departure

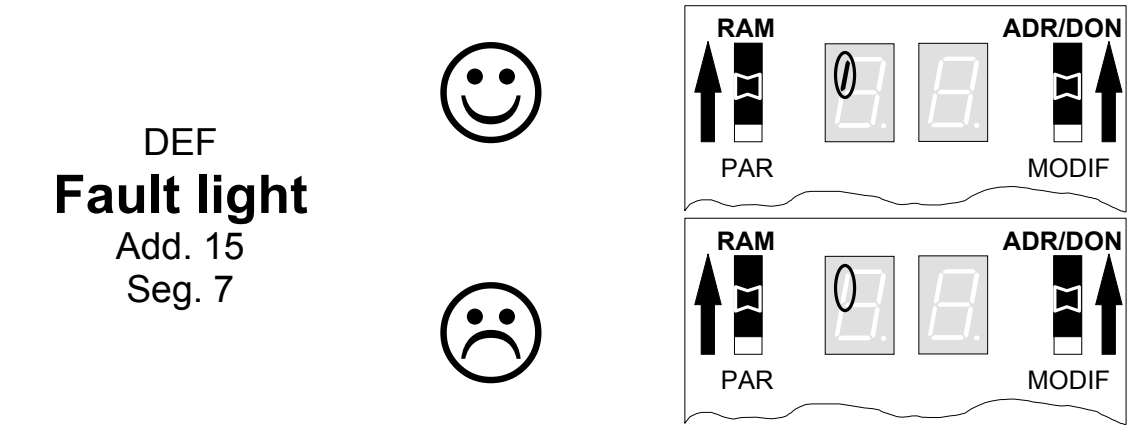


Consequence of the delayed departure

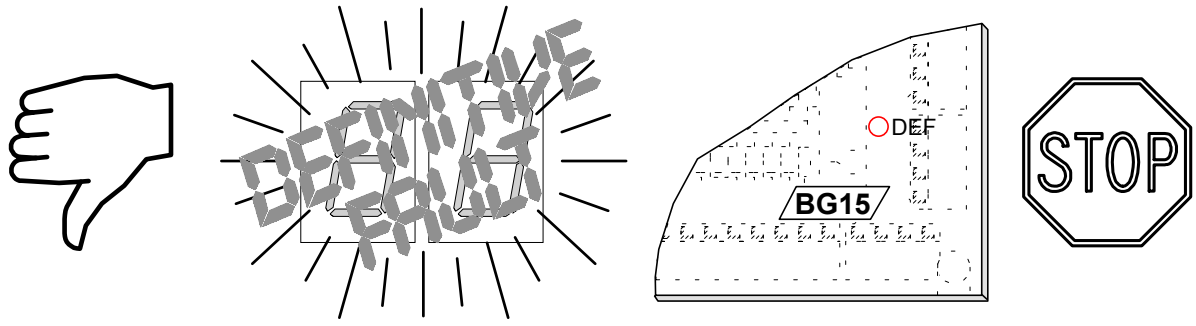
FAULT LIGHT (INDICATOR)



Connection of the fault light

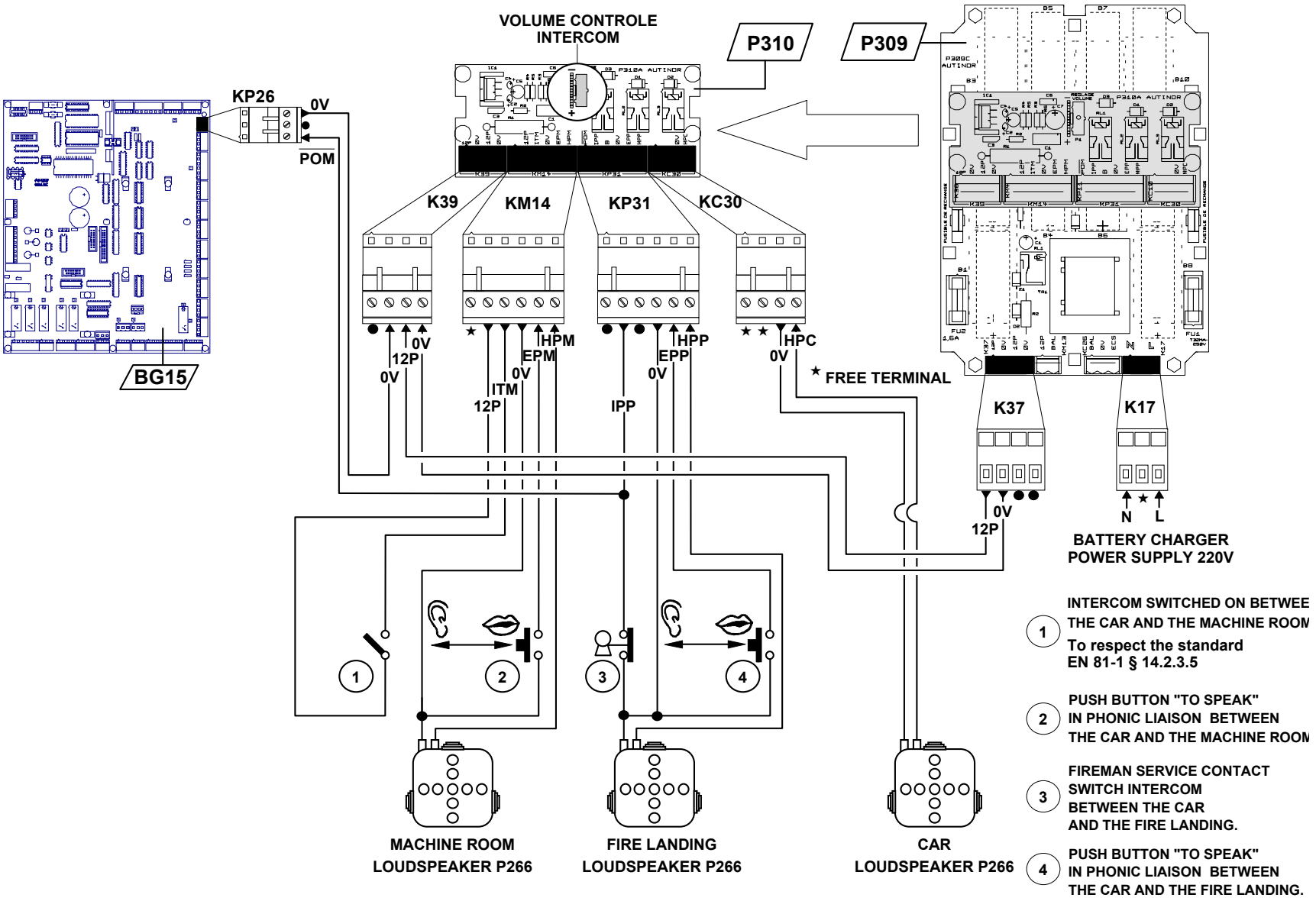


Viewing of the fault light



Consequences of the fault light

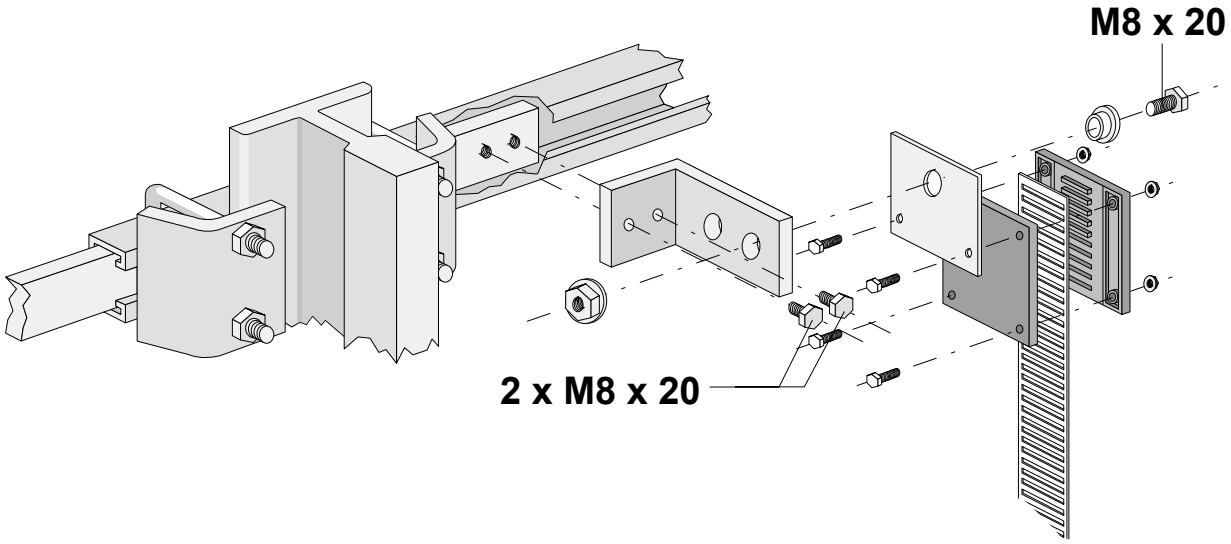
INTERCOM

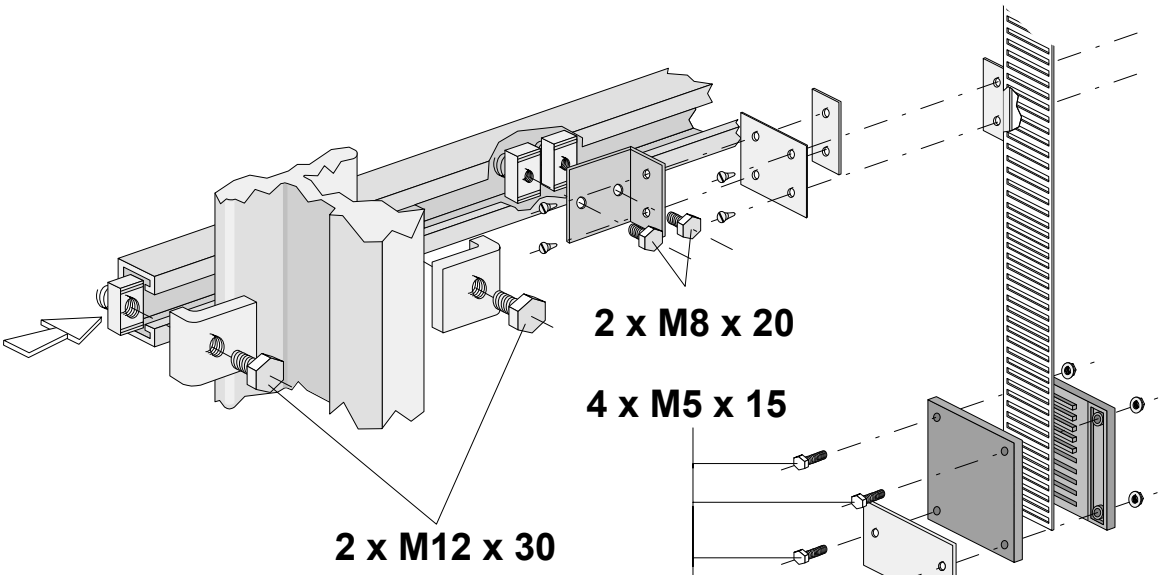

VOLUME CONTROLE
INTERCOM
P310
P309
KP26
0V
POM
BG15
K39
KM14
KP31
KC30
0V
12P
0V
0V
ITM
12P
HPM
EPM
0V
IPP
HPP
EPP
0V
HPC
0V
★ FREE TERMINAL
K37
K17
0V
12P
N
★
L
BATTERY CHARGER
POWER SUPPLY 220V
1
2
3
4
MACHINE ROOM
LOUDSPEAKER P266
FIRE LANDING
LOUDSPEAKER P266
CAR
LOUDSPEAKER P266
1 INTERCOM SWITCHED ON BETWEE THE CAR AND THE MACHINE ROOM To respect the standard EN 81-1 § 14.2.3.5
2 PUSH BUTTON "TO SPEAK" IN PHONIC LIAISON BETWEEN THE CAR AND THE MACHINE ROOM
3 FIREMAN SERVICE CONTACT SWITCH INTERCOM BETWEEN THE CAR AND THE FIRE LANDING.
4 PUSH BUTTON "TO SPEAK" IN PHONIC LIAISON BETWEEN THE CAR AND THE FIRE LANDING.

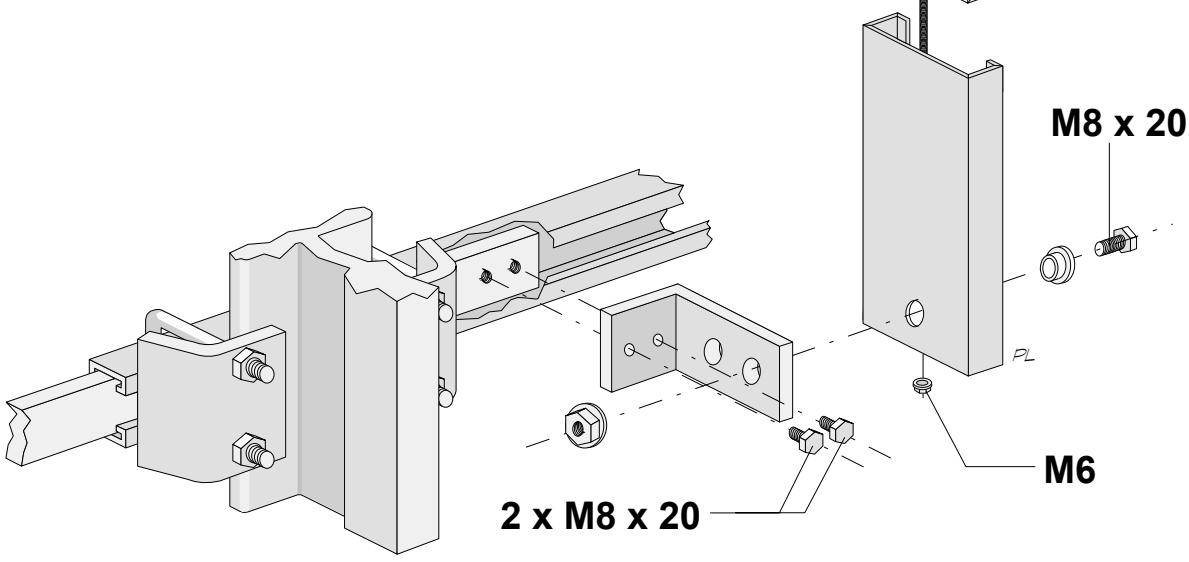
CHAPTER IV

INSTALLATION & CONNECTING IN SHAFT

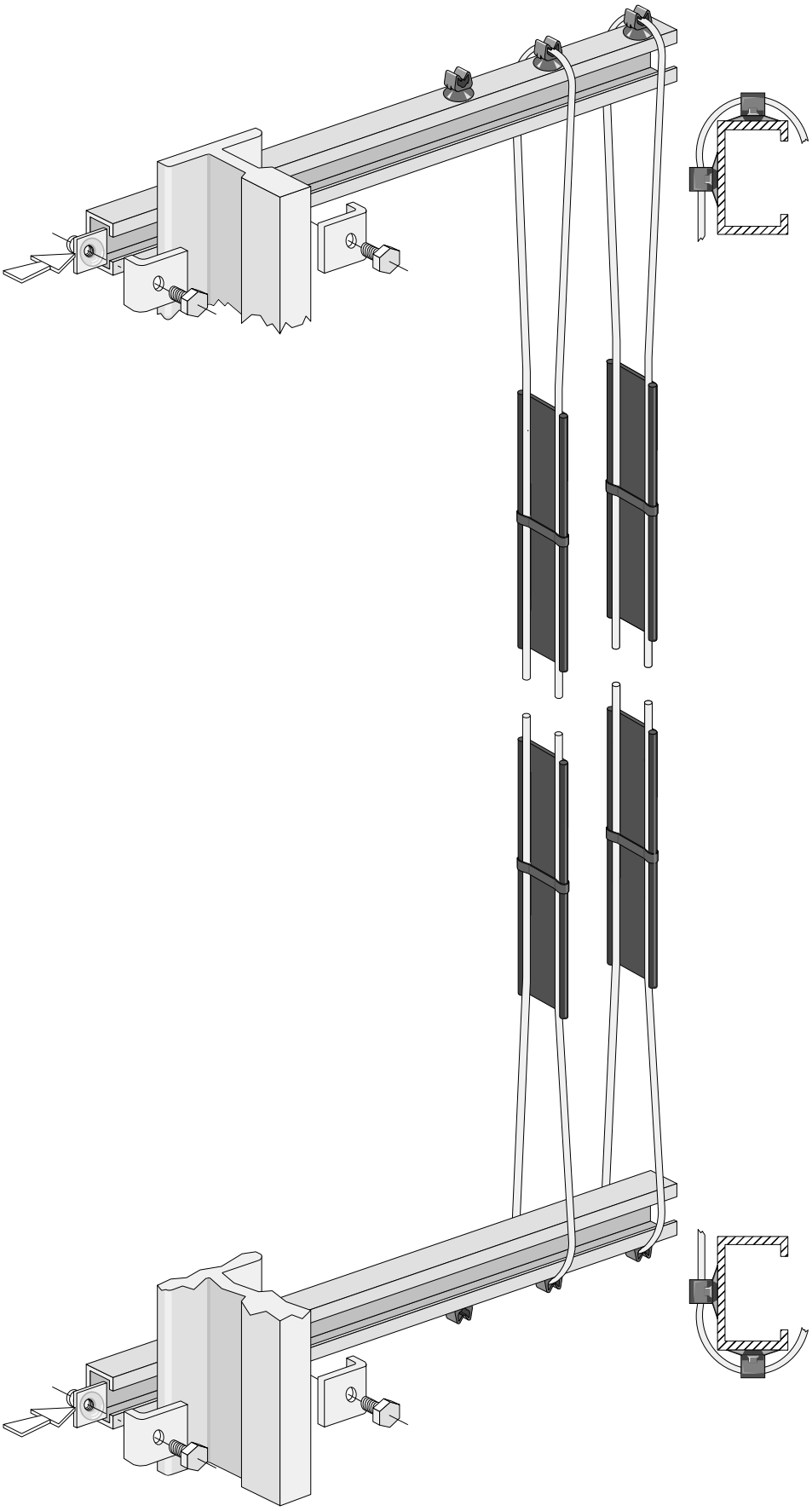
FIXING THE SLOTTED-TAPE BRACKETS



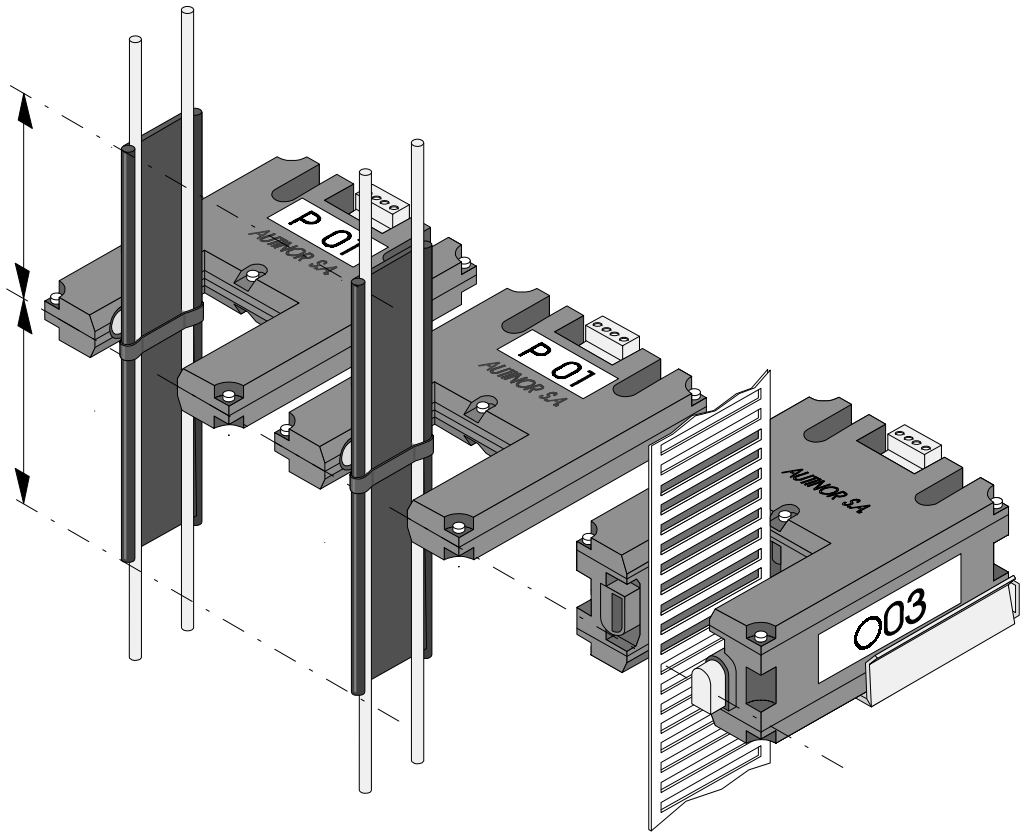




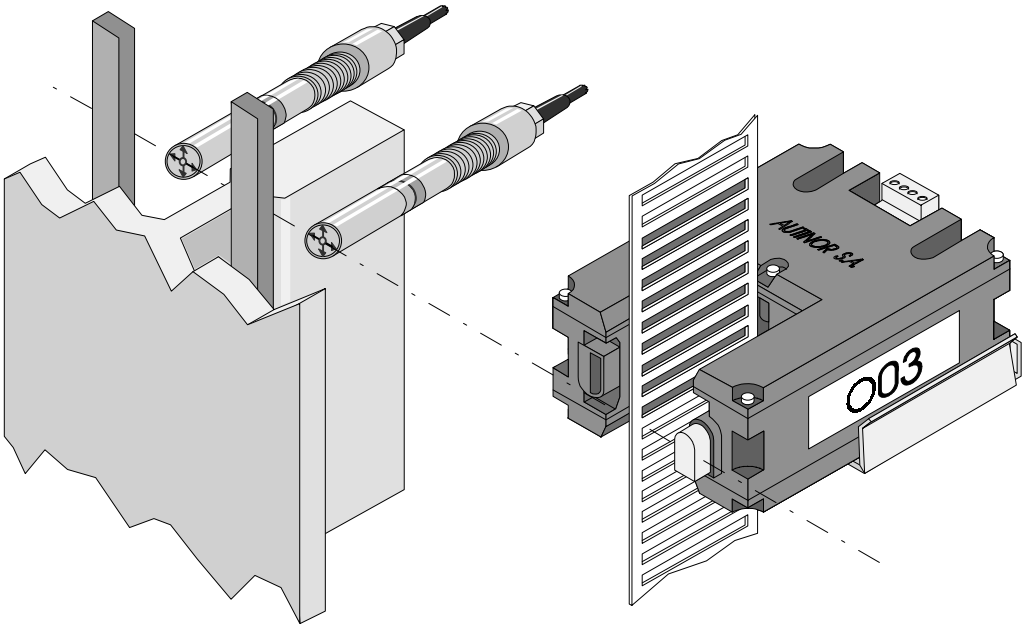
FIXING THE BRACKETS FOR CONTROL OF THE DOOR-ZONE



POSITION OF THE DOOR-ZONE P01 SENSOR OR PROXIMITY SWITCHES (I.L.S.) AND TAPE HEAD O03 SELECTOR

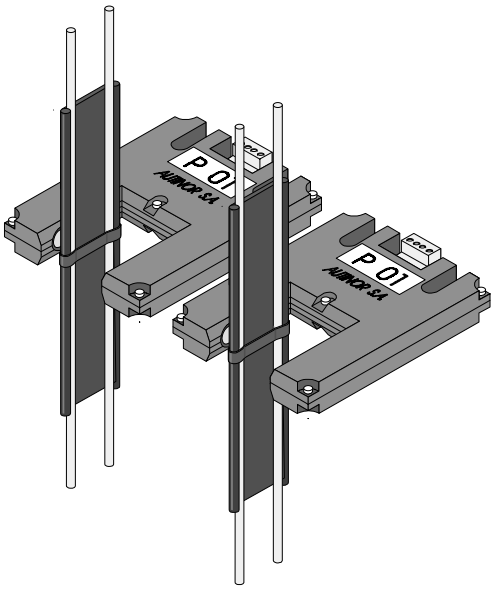


Position of door-zone P01 sensors and tape-head O03 selector

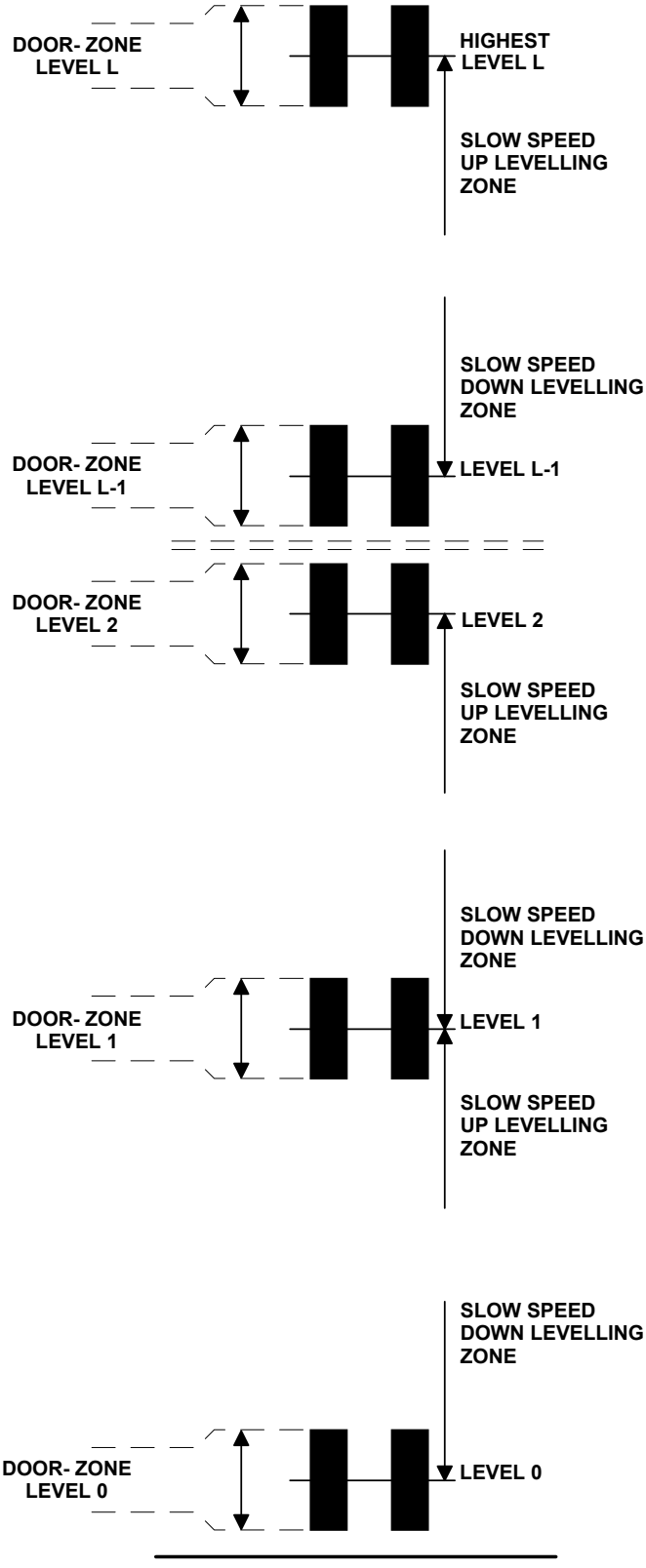


Position of proximity switches (I.L.S) door-zone sensors and tape-head O03 selector

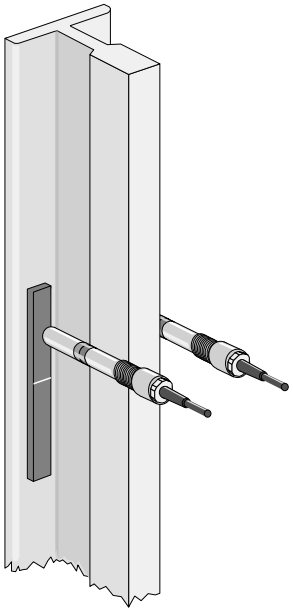
POSITION OF THE VANES FOR DOOR-ZONE P01 SENSORS IN CASE OF DOORS OPEN MOVEMENTS



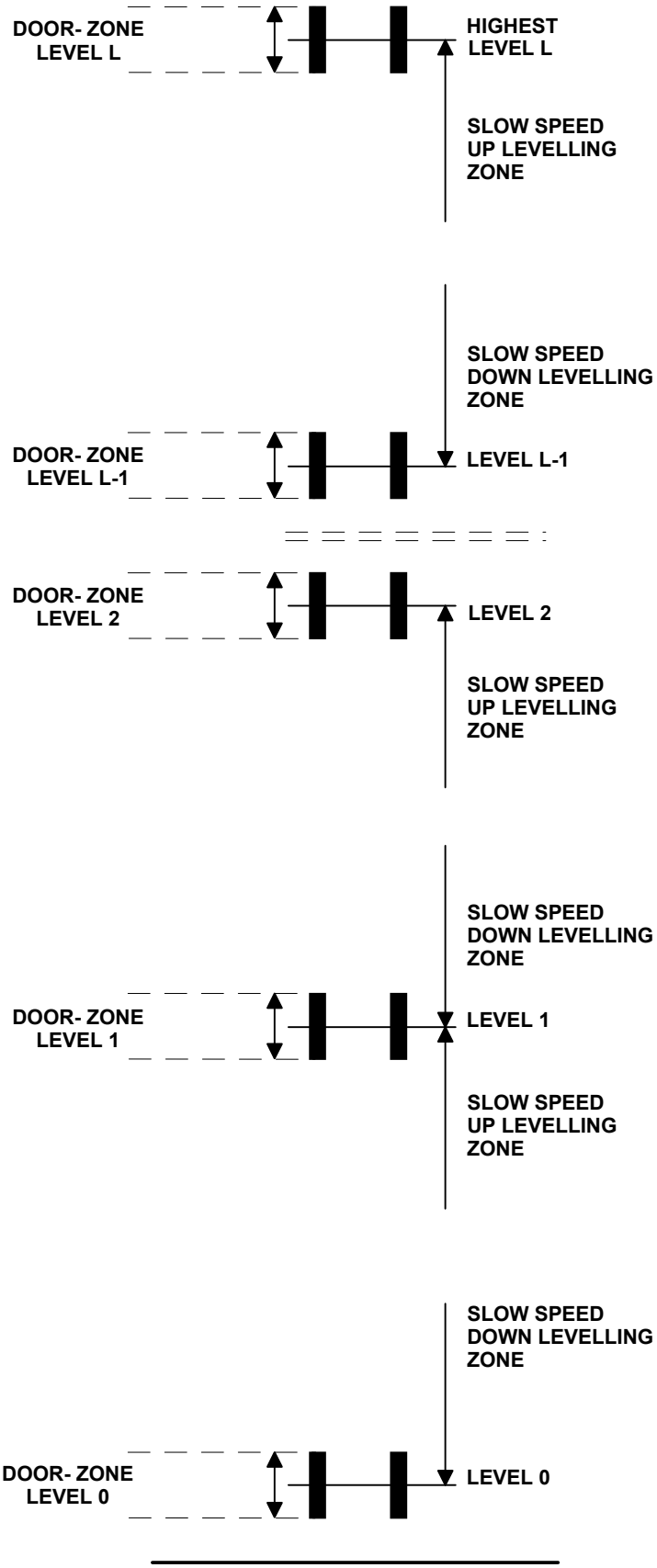
TAPE-HEAD P01



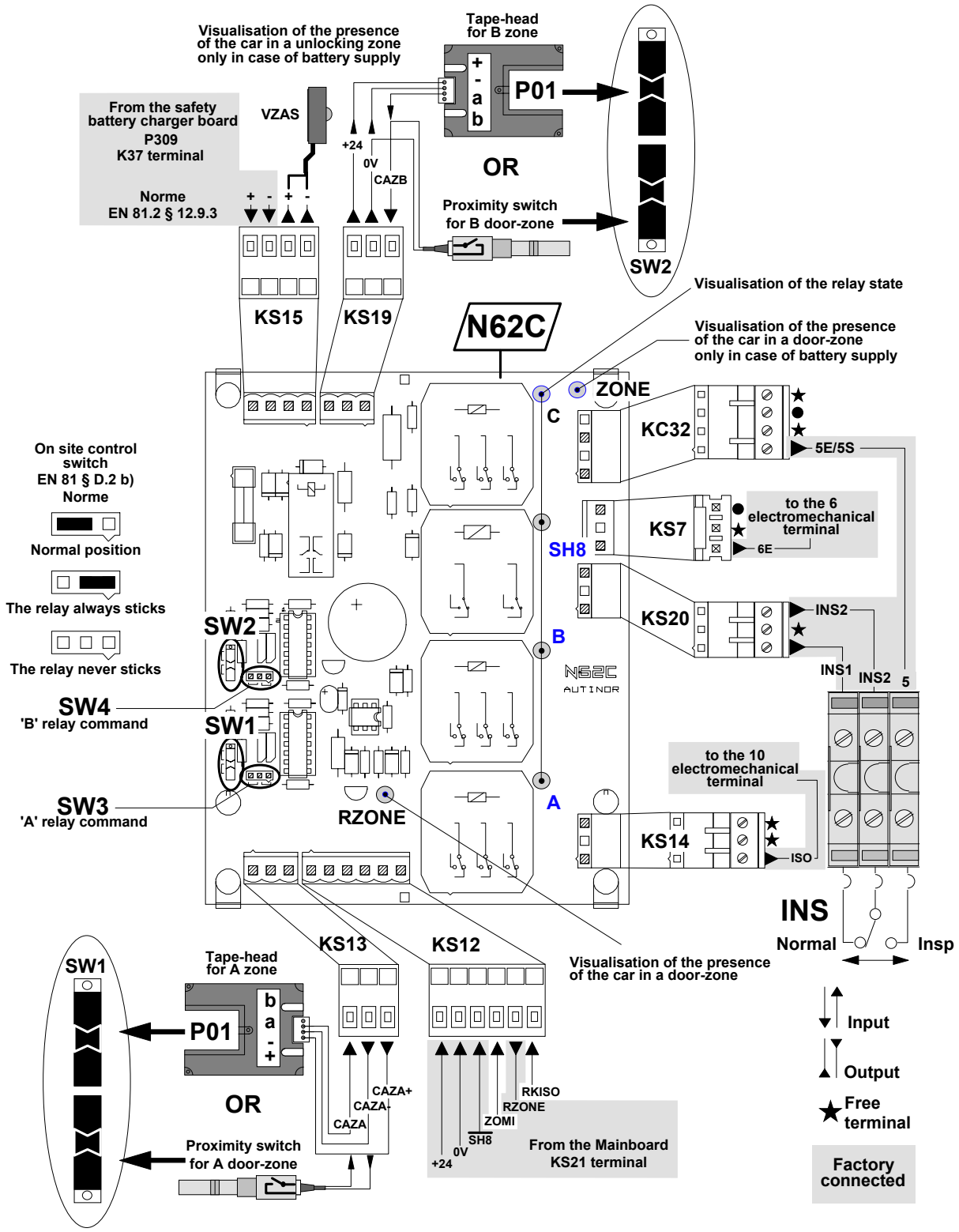
POSITION OF THE MAGNETS FOR THE DOOR-ZONE READ BY PROXIMITY SWITCHES



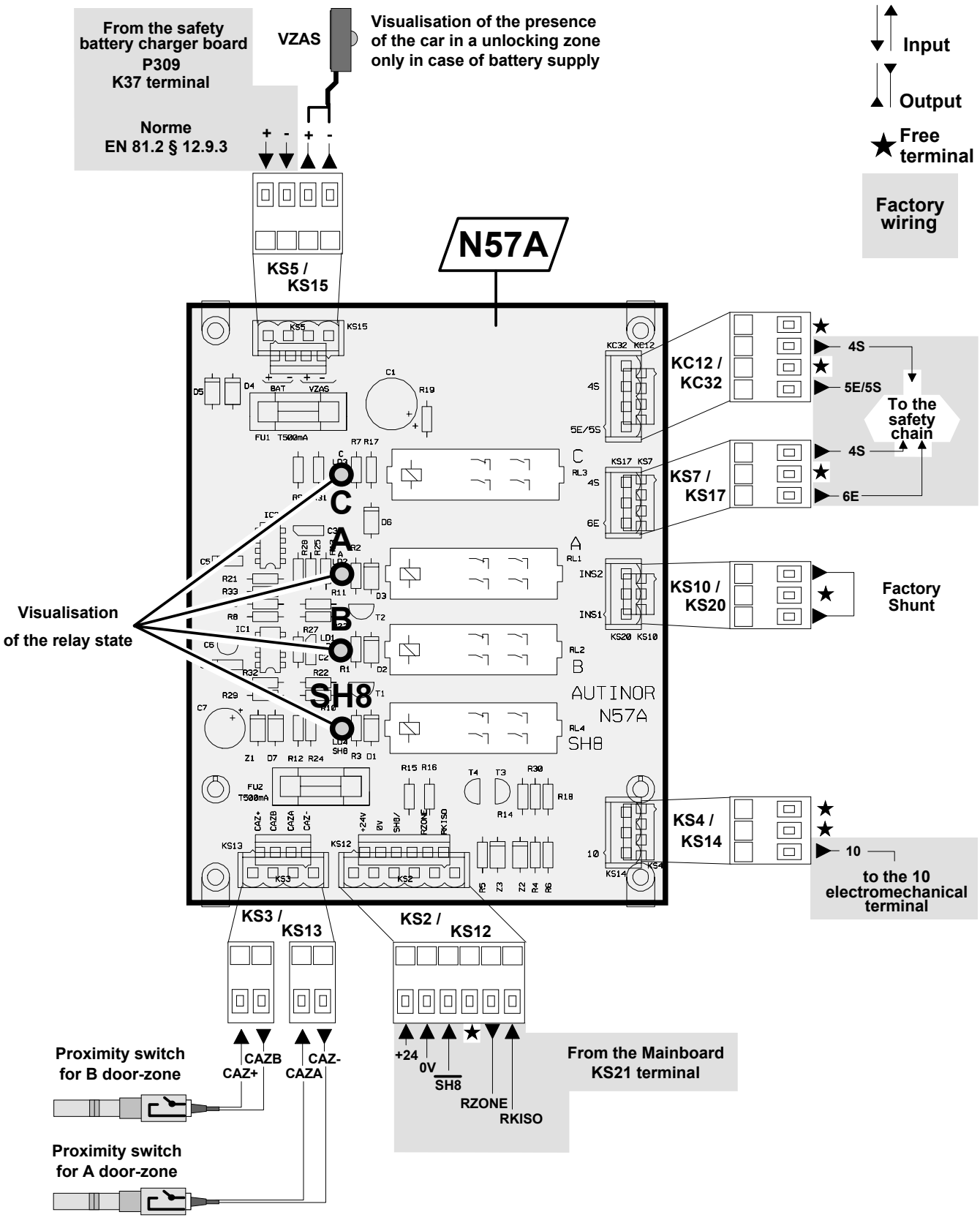
PROXIMITY SWITCHES



DOOR SECURITY BRIDGE BOARD RELEVELLING
PRE-OPENING BOARD
VISUALISATION OF THE DOOR-ZONE (N62)



DOOR SECURITY BRIDGE BOARD RELEVELLING
PRE-OPENING BOARD
VISUALIZATION OF THE DOOR-ZONE (N57)

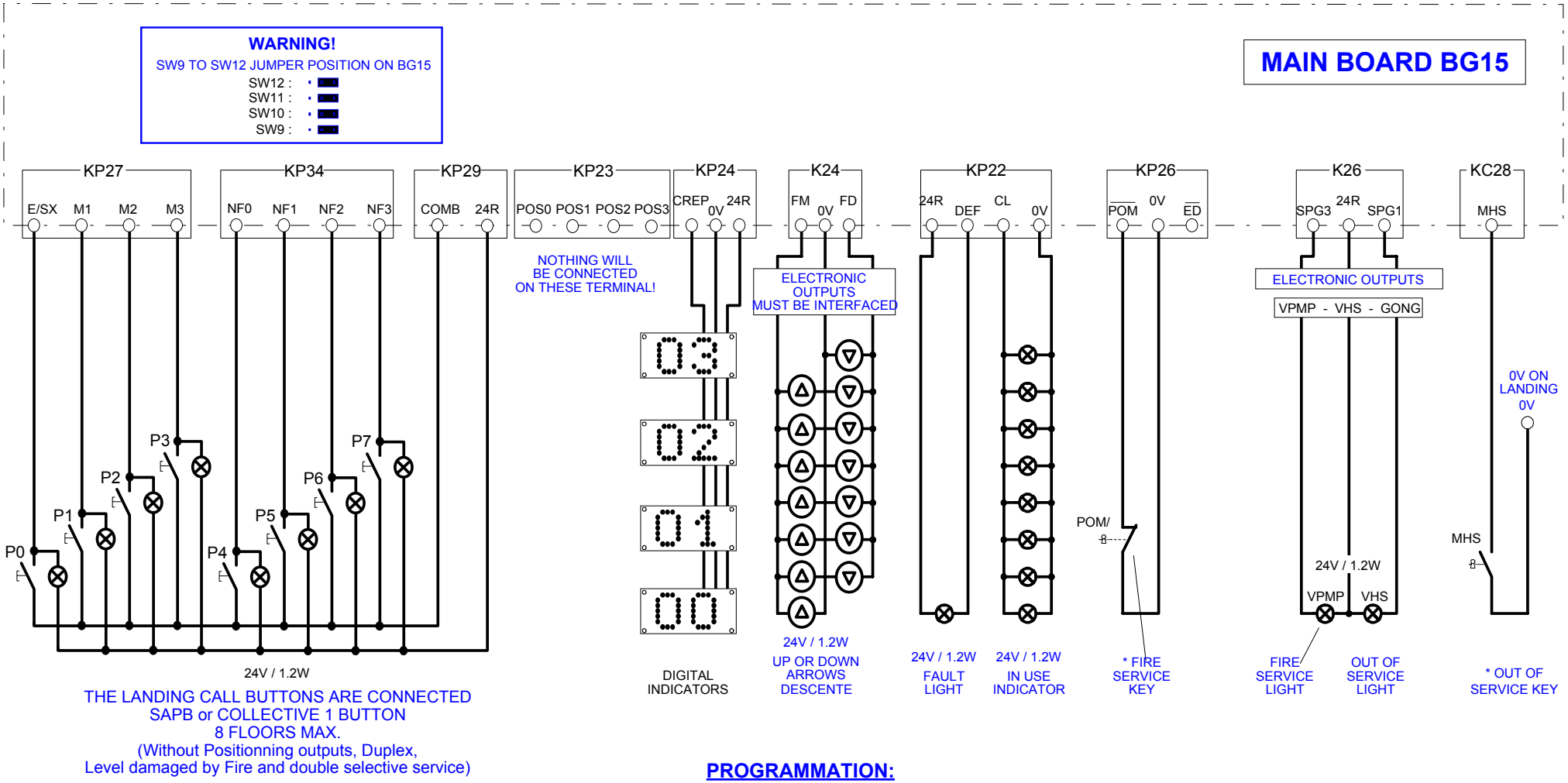


For each **N57** you can find attached a specific documentation (Directive relating to lift (95/16/EC) Annex 1 § 6.1.) concerning this **safety component**.

CHAPTER V

INSTALLATION
&
CONNECTING
ON LANDING

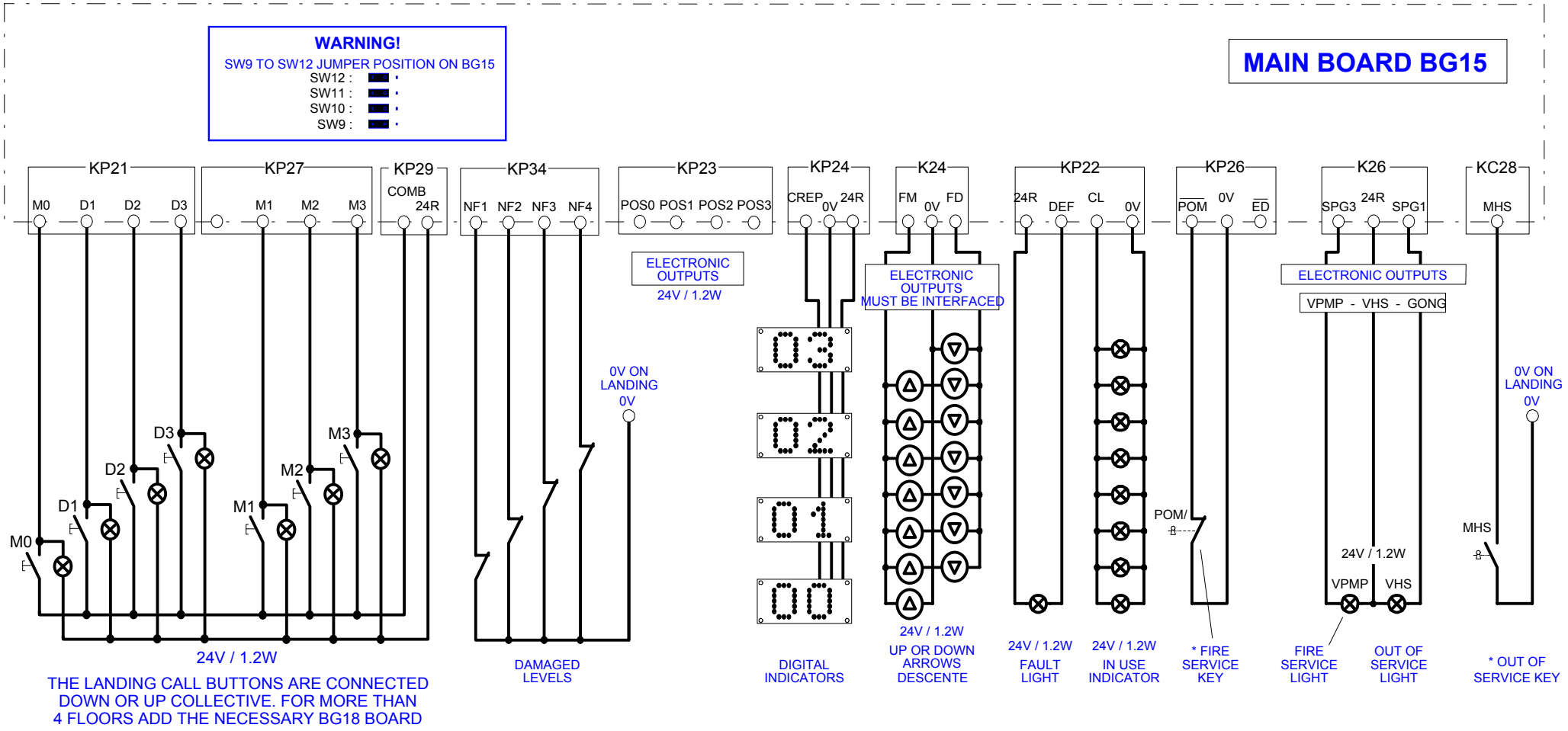
CONNECTING ON LANDING: 2 TO 8 LEVELS (SAPB OR COLLECTIVE 1 BUTTON)



THE LANDING CALL BUTTONS ARE CONNECTED
SAPB or COLLECTIVE 1 BUTTON
8 FLOORS MAX.
(Without Positionning outputs, Duplex,
Level damaged by Fire and double selective service)

PROGRAMMATION:

CONNECTING ON LANDING: SAPB MORE THAN 8 LEVELS OR COLLECTIVE 1 OR 2 BUTTONS / LANDING 2 TO 16 LEVELS



PROGRAMMATION:

- IN COLLECTIVE 2 BUTTONS: Add 07-Seg 7-UNLIT ; Add 5C-Seg 5-UNLIT, Bat 6-UNLIT (SEE THE MASK AT ADDRESSES 13, 14 AND 16, 17)

COMBINATION OF ELECTRONICS BOARDS

In function of: number of level, number of button at the each landing and the controller type.

The table below indicates the different combination between the electronics boards ***BG15*** (Main board), ***BG18*** (Levels boards) and ***BG19*** (2nd service board) includes in your controller, in function of the number of levels (2 to 16 Levels), buttons at each landing (1 or 2 buttons) and your controller type (collective 1 button, Full collective, double selective service).

	BG15	BG18 (1)	BG18 (2)	BG18 (3)	BG19	Drawing page
Single automatic operation 2 to 8 level	X	-	-	-	-	5
Single automatic operation 9 to 12 level	X	X	X	-	-	7
Single automatic operation 13 to 16 level	X	X	X	X	-	7
Collective operation 1 button 2 to 8 level	X	-	-	-	-	9
Collective operation 1 button 2 to 16 level	X	X	X	X	-	11
Full collective operation 2 to 4 level	X	-	-	-	-	13
Full collective operation 5 to 8 level	X	X	-	-	-	13
Full collective operation 9 to 12 level	X	X	X		-	13
Full collective operation 13 to 16 level	X	X	X	X	-	13
Double selective service 2 to 4 level	X	X	-	-	X	15
Double selective service 5 to 8 level	X	X	X	X	X	15

The table below indicates which interception direction at a given landing, in function of the different parameter state.

In any case, the segment *Base 8N* light on !				
Segment *BLOCAG*	**Segment Ramdes**	**Segment *MsqDE***	**Segment *MsqMo***	**Interception direction on landing**
Lit	indifferent	indifferent	indifferent	Single automatic
Unlit	Unlit	indifferent	indifferent	in Down for all levels
Unlit	Lit	Unlit	Unlit	No interception
Unlit	Lit	Lit	Unlit	in Down
Unlit	Lit	Unlit	Lit	in Up
Unlit	Lit	Lit	Lit	In both direction (*)

(*) When the both segments ***Base 8N*** and ***Ramdes*** are lit, the sofware of the controller MB32 forced the switching on of the Parameter-segment ***EFFNSEL*** (Call cancel option / *EFFacement Non Sélectif ?*) -address **08**, segment 3.

When the segment ***Base 8N*** is switching on, the equipment MB32 works on SAPB mode or Collective 1 button per landing.

When the segment ***BLOCAG*** is switching on, the equipment MB32 works on SAPB mode, if the segment is switching off, the equipment works on Down collective mode.

For reasons describes above at the parameter-segment ***Base 8N***, the software forced the switching off of the segment ***Ramdes*** if you have switching on, one of the segment below:

- ***DServS*** - address 02, segment 2. (*Double Selective SERVice?*)
- ***NivSin*** - address 02, segment 3, (*Level damaged?*)
- ***DPLX*** - address 02, segment 6. (*DuPLeX?*)

LANDING CALLS FOR SINGLE AUTOMATIC OPERATION 2 TO 8 LEVELS (1/2)

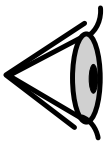
⚠ : **Without positioning 1 wire per level-without multiplex-without level damaged**

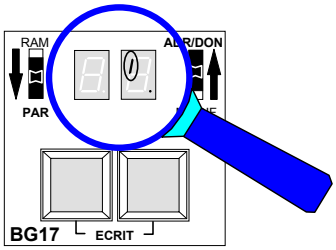
BASE 8N

BASE 8 level

Add. **5C**

Seg. **5**



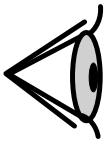


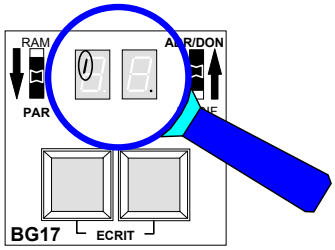
BLOCAG

Single automatic operation?

Add. **07**

Seg. **7**



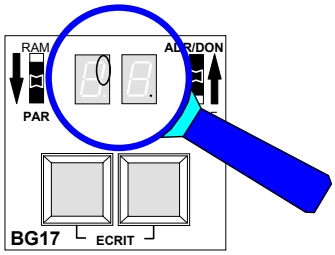


RAMDES

Down collective

Add. **5C**

Seg. **6**



<u>For the mask:</u>

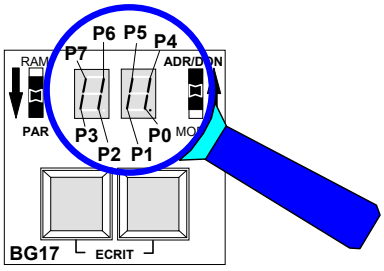
To switch on the segment corresponding to the active buttons.

MsqDE

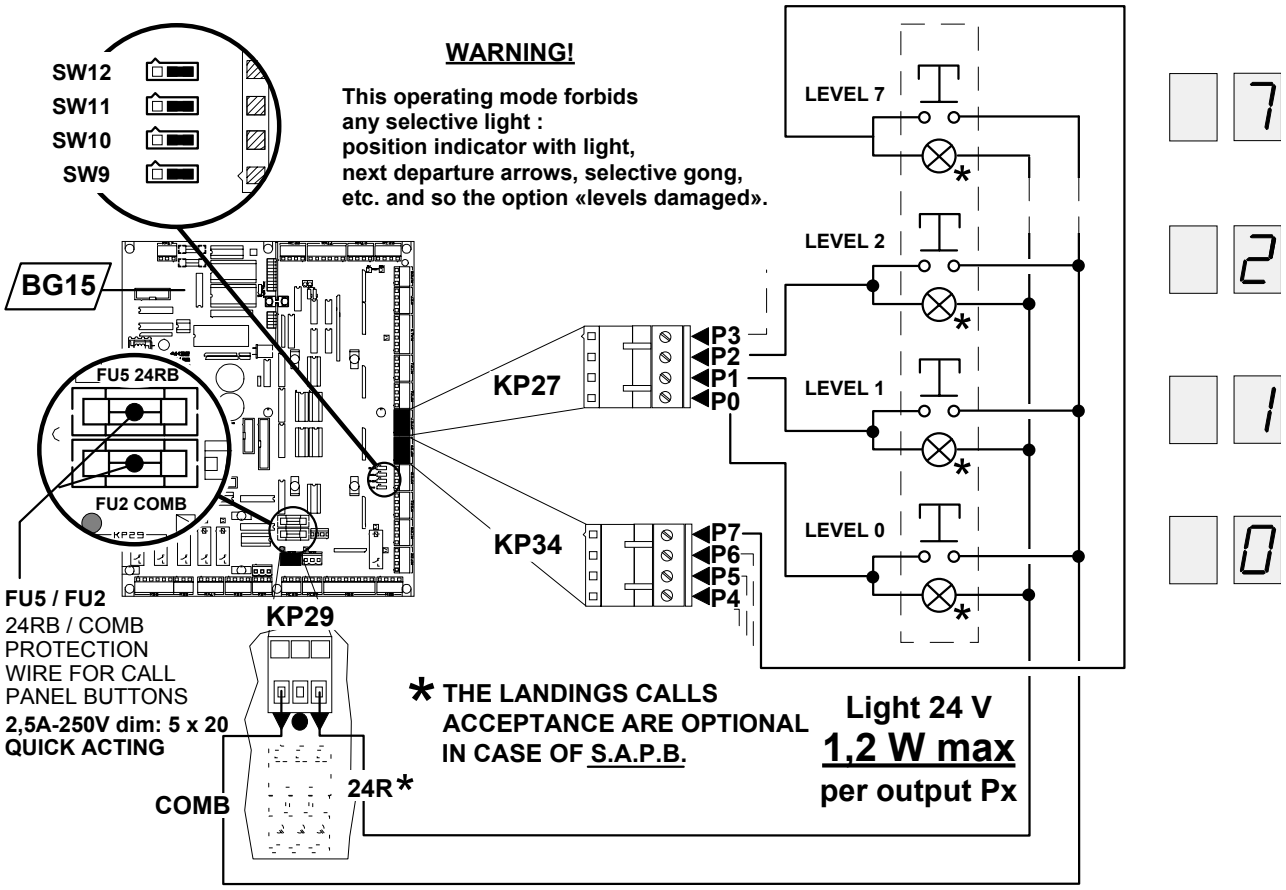
Mask the landing calls for « Down »

Add. **16**

Seg. **0 to 7**



LANDING CALLS FOR SINGLE AUTOMATIC OPERATION 2 TO 8 LEVELS (2/2)



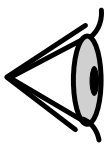
Landing calls connection

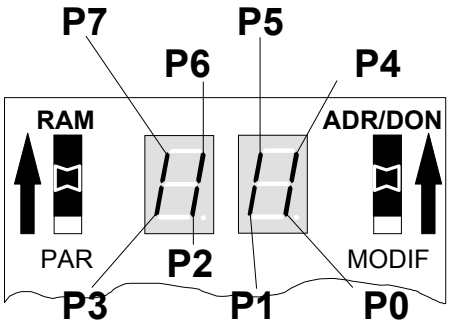
Px - APPALD

« Down » landing calls M0, D1 to D15

Add. **06**

Seg. **0 to 7**





Landing calls preview

LANDING CALLS FOR SINGLE AUTOMATIC OPERATION 2 TO 16 LEVELS (1/2)

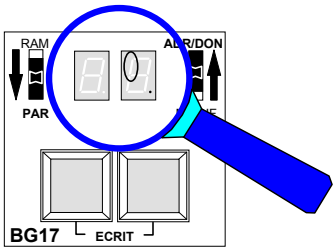
⚠ : **With positioning 1 wire per level - multiplex - level damaged**

BASE 8N

BASE 8 level

Add. **5C**

Seg. **5**

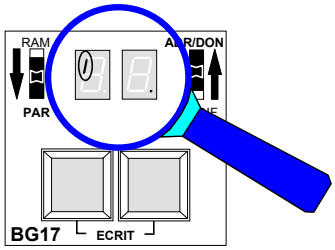


BLOCAG

Single automatic operation?

Add. **07**

Seg. **7**

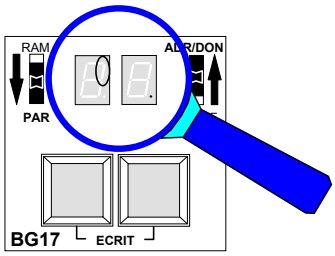


RAMDES

Down collective

Add. **5C**

Seg. **6**



For the mask:

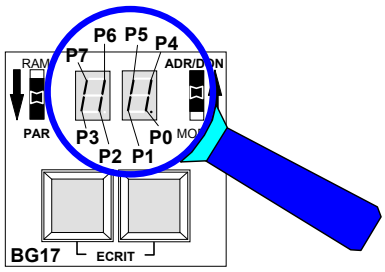
To switch on the segment corresponding to the active buttons.

MsqDE

Mask the landing calls for « Down »

Add. **16**

Seg. **0 to 7**

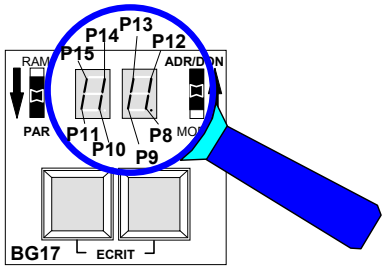


MsqDE

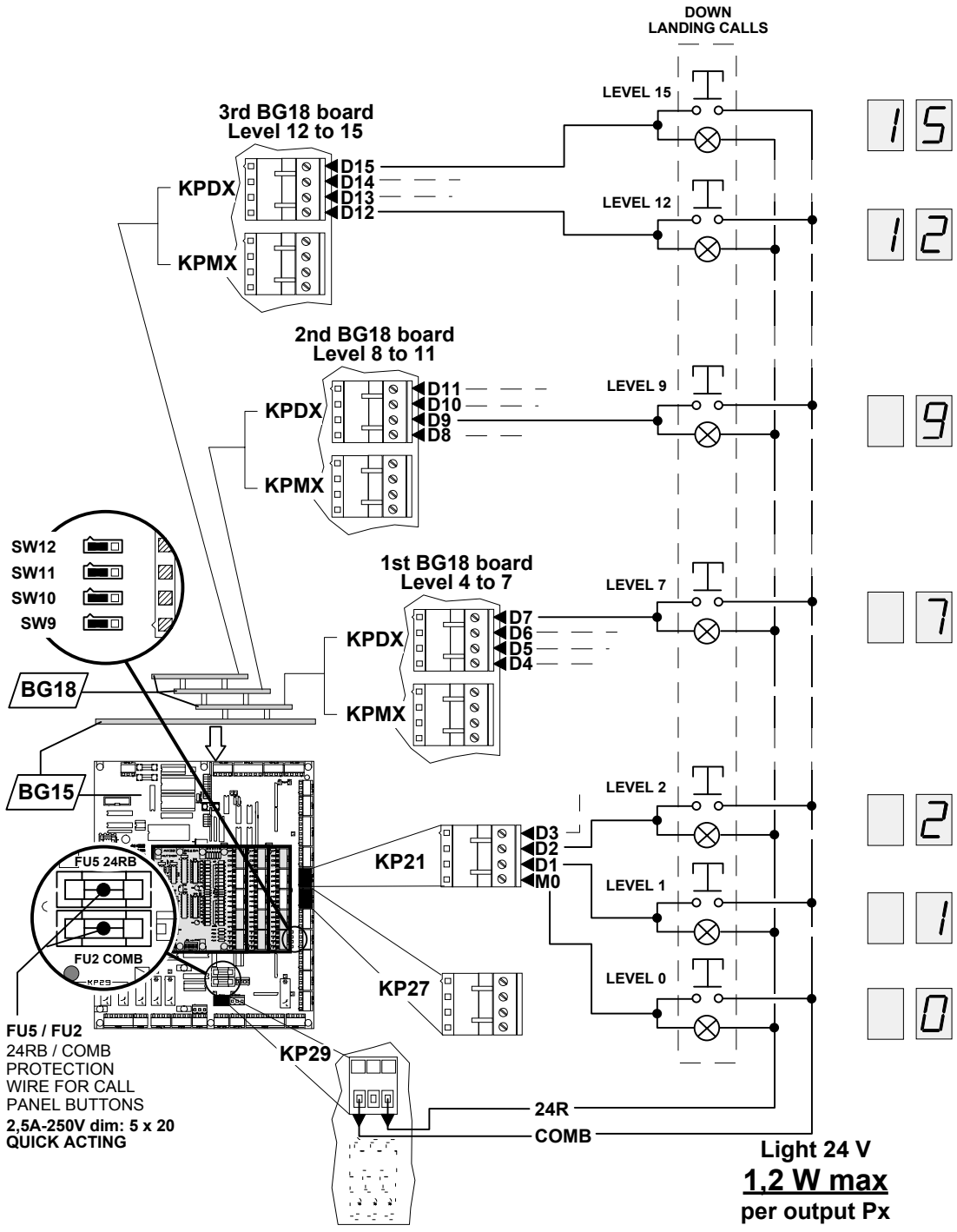
Mask the landing calls for « Down »

Add. **17**

Seg. **0 to 7**

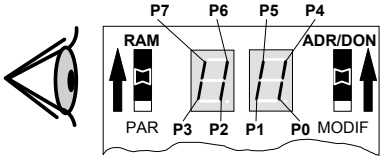


LANDING CALLS FOR SINGLE AUTOMATIC OPERATION 2 TO 16 LEVELS (2/2)

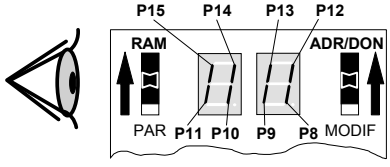


Landing calls connection

Px - APPALD
« Down » landing calls M0, D1 to D15
Add. **06**
Seg. **0 to 7**



Px - APPALD
« Down » landing calls M0, D1 to D15
Add. **07**
Seg. **0 to 7**



Landing calls preview

LANDING CALLS FOR COLLECTIVE OPERATION, 1 BUTTON, 2 TO 8 LEVELS (1/2)

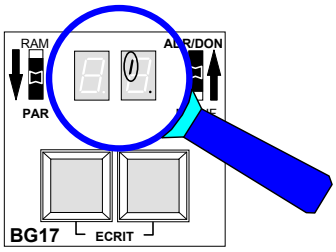
⚠ : **Without positioning 1 wire per level, without Duplex, without level damaged**

BASE 8N

BASE 8 Level

Add. **5C**

Seg. **5**

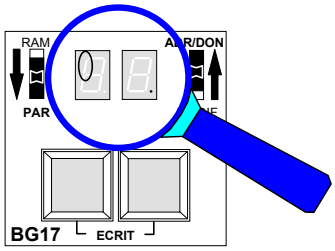


BLOCAG

Single automatic operation?

Add. **07**

Seg. **7**

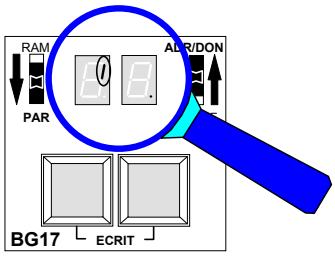


RAMDES

Down collective

Add. **5C**

Seg. **6**



For the mask:

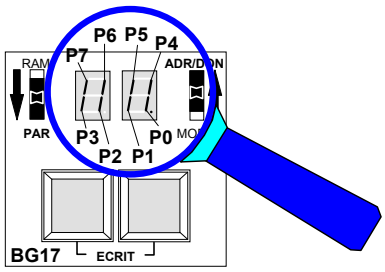
To switch on the segment corresponding to the active buttons and direction.

MsqMo

Mask the landing calls for « Up »

Add. **13**

Seg. **0 to 7**

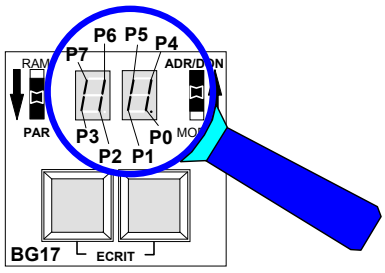


MsqDE

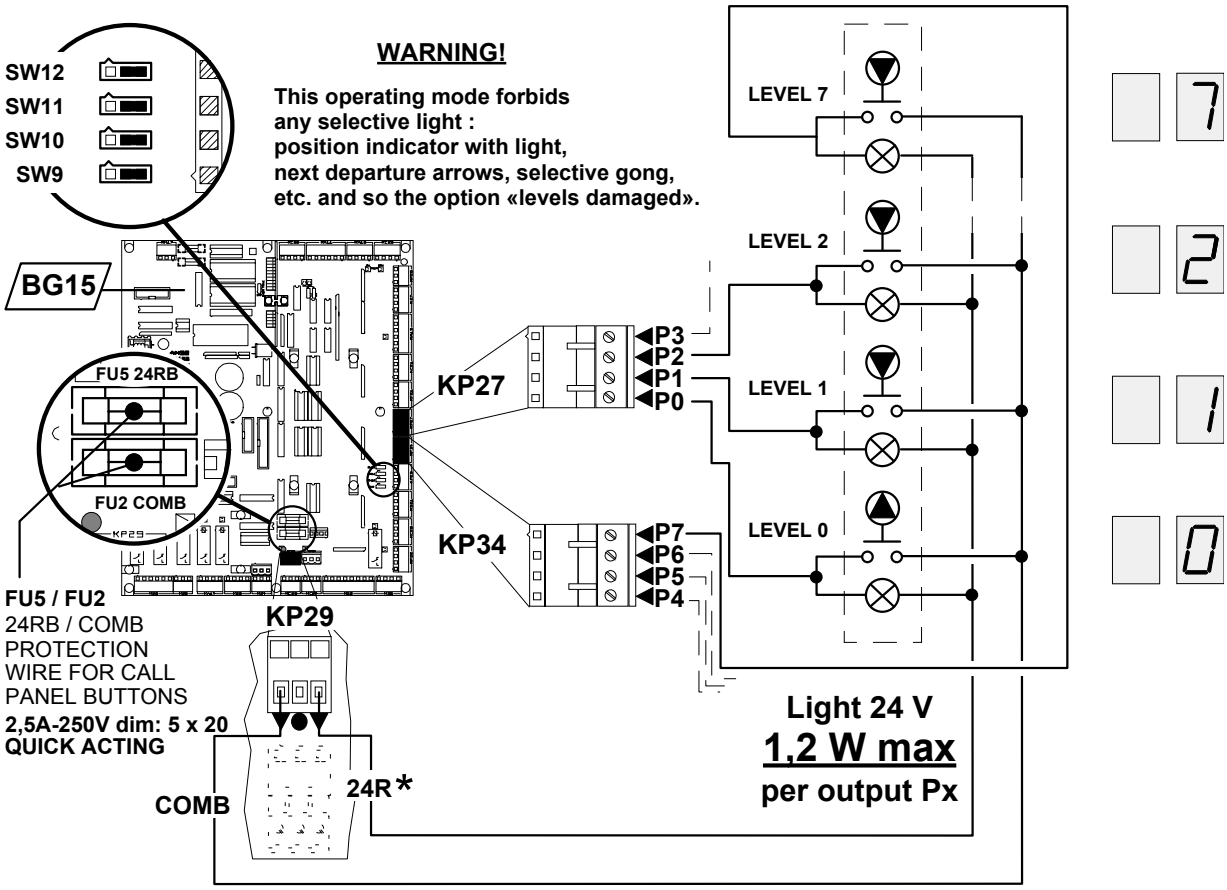
Mask the landing calls for « Down »

Add. **16**

Seg. **0 to 7**



LANDING CALLS FOR COLLECTIVE OPERATION, 1 BUTTON, 2 TO 8 LEVELS (2/2)



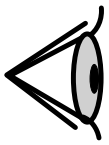
Landing calls connection

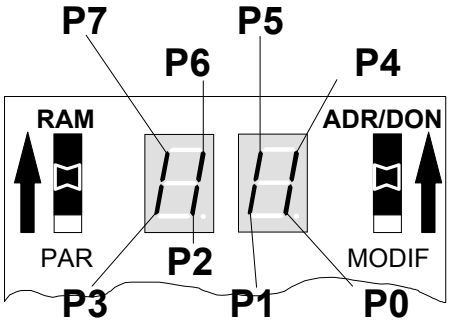
Px - APPALD

« Down » landing calls M0, D1à D15

Add. **06**

Seg. **0 to 7**





Landing calls preview

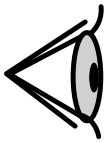
LANDING CALLS FOR COLLECTIVE OPERATION, 1 BUTTON, 2 TO 16 LEVELS (1/2)

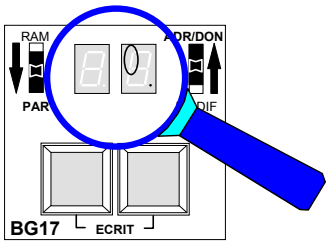
BASE 8N

BASE 8 Level

Add. **5C**

Seg. **5**



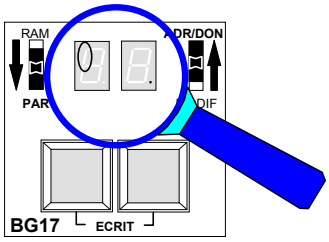


BLOCAG

Single automatic operation?

Add. **07**

Seg. **7**

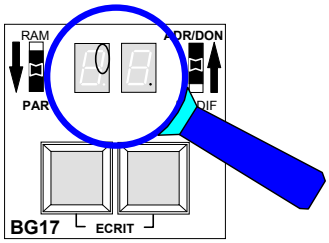


RAMDES

Down collective

Add. **5C**

Seg. **6**



For the mask:

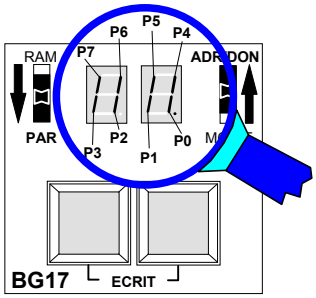
To switch on the segment corresponding to the active buttons and direction.

MsqMo

Mask the landing calls for « Up »

Add. **13**

Seg. **0 to 7**

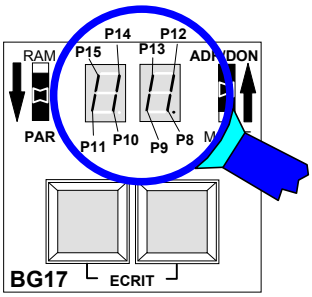


MsqMo

Mask the landing calls for « Up »

Add. **14**

Seg. **0 to 7**

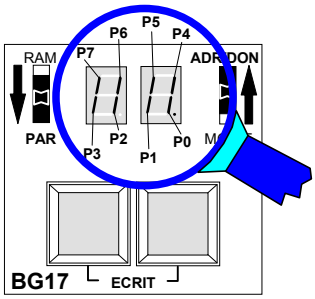


MsqDE

Mask the landing calls for « Down »

Add. **16**

Seg. **0 to 7**

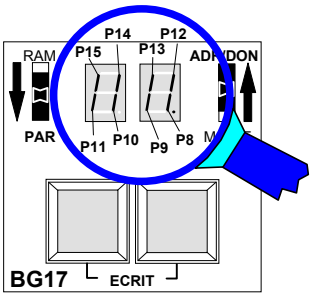


MsqDE

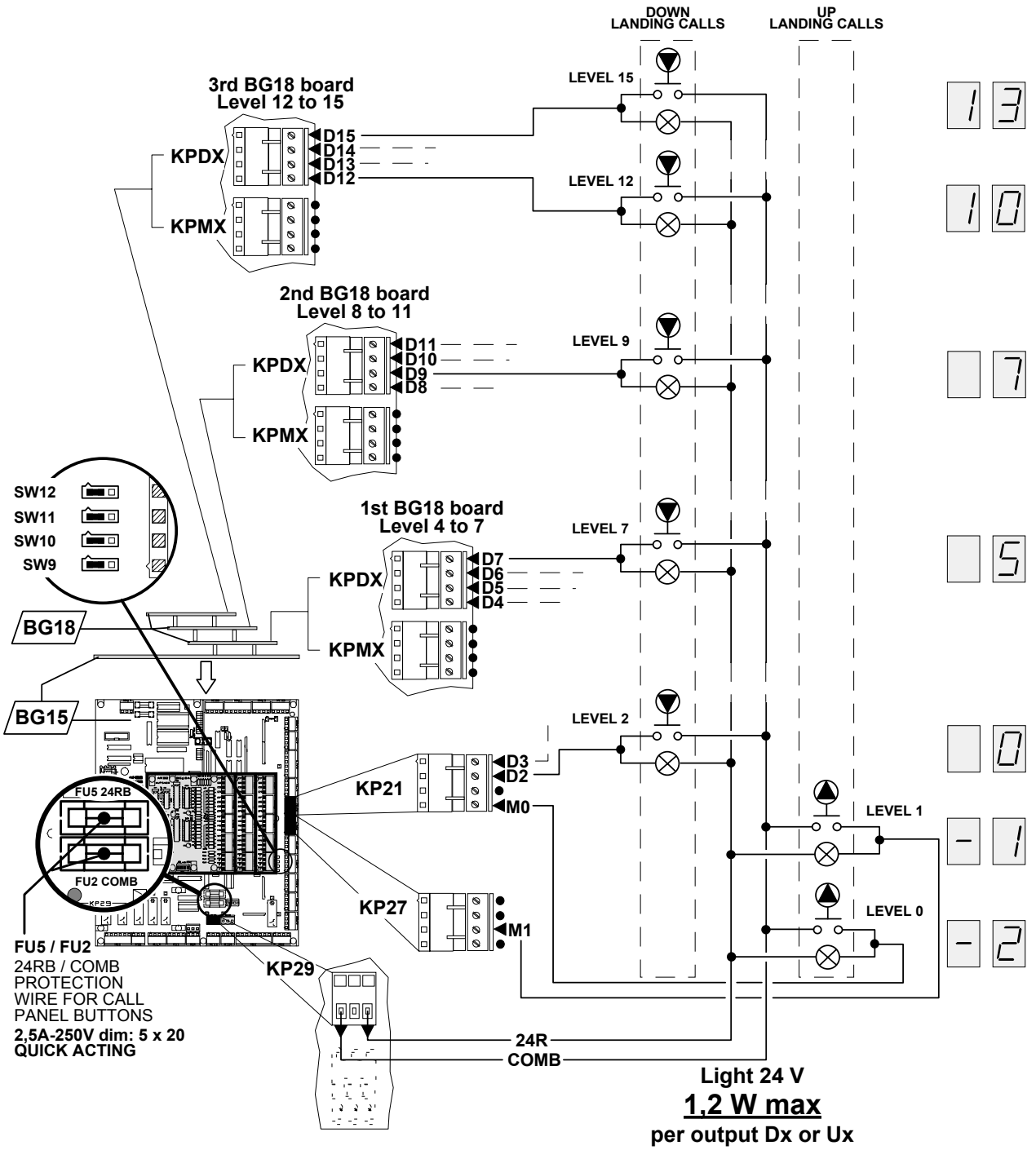
Mask the landing calls for « Down »

Add. **17**

Seg. **0 to 7**

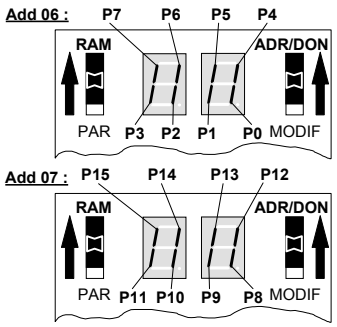


LANDING CALLS FOR COLLECTIVE OPERATION, 1 BUTTON, 2 TO 16 LEVELS (2/2)

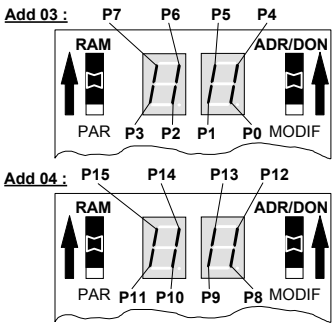


Landing calls connection

Px - APPALD
« Down » landing calls M0, D1 to D15
Add. **06 & 07**
Seg. **0 to 7**



Px - APPALM
« Up » landing calls M0 to M15
Add. **03 & 04**
Seg. **0 to 7**



Landing calls preview

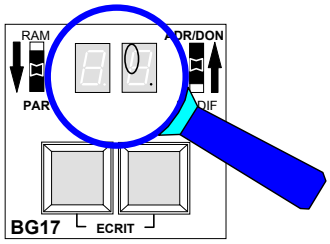
LANDING CALLS FOR FULL COLLECTIVE OPERATION, 2 TO 16 LEVELS (1/2)

BASE 8N

BASE 8 Level?

Add. **5C**

Seg. **5**

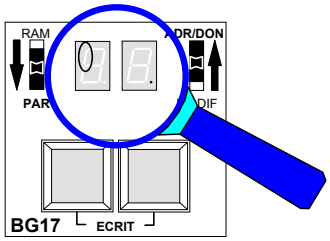


BLOCAG

Single automatic operation?

Add. **07**

Seg. **7**

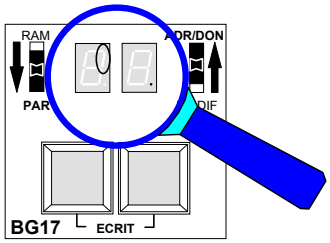


RAMDES

Down collective

Add. **5C**

Seg. **6**



For the mask:

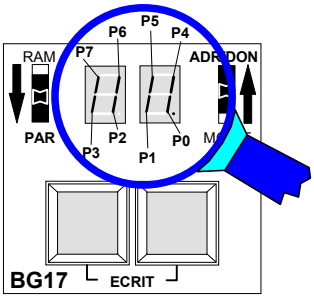
To switch on the segment corresponding to the active buttons and direction.

MSQMO

Mask the landing calls for « Up »

Add. **13**

Seg. **0 to 7**

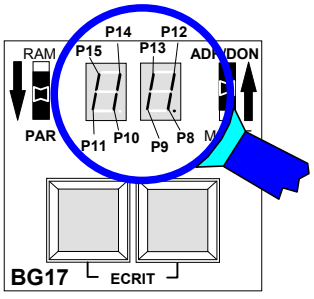


MSQMO

Mask the landing calls for « Up »

Add. **14**

Seg. **0 to 7**

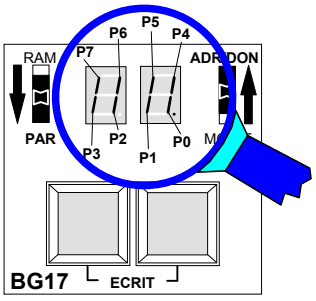


MSQDE

Mask the landing calls for « Down »

Add. **16**

Seg. **0 to 7**

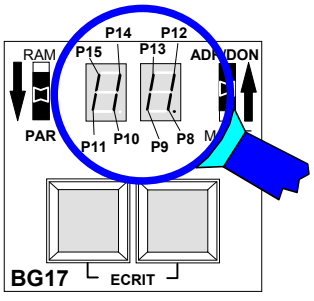


MSQDE

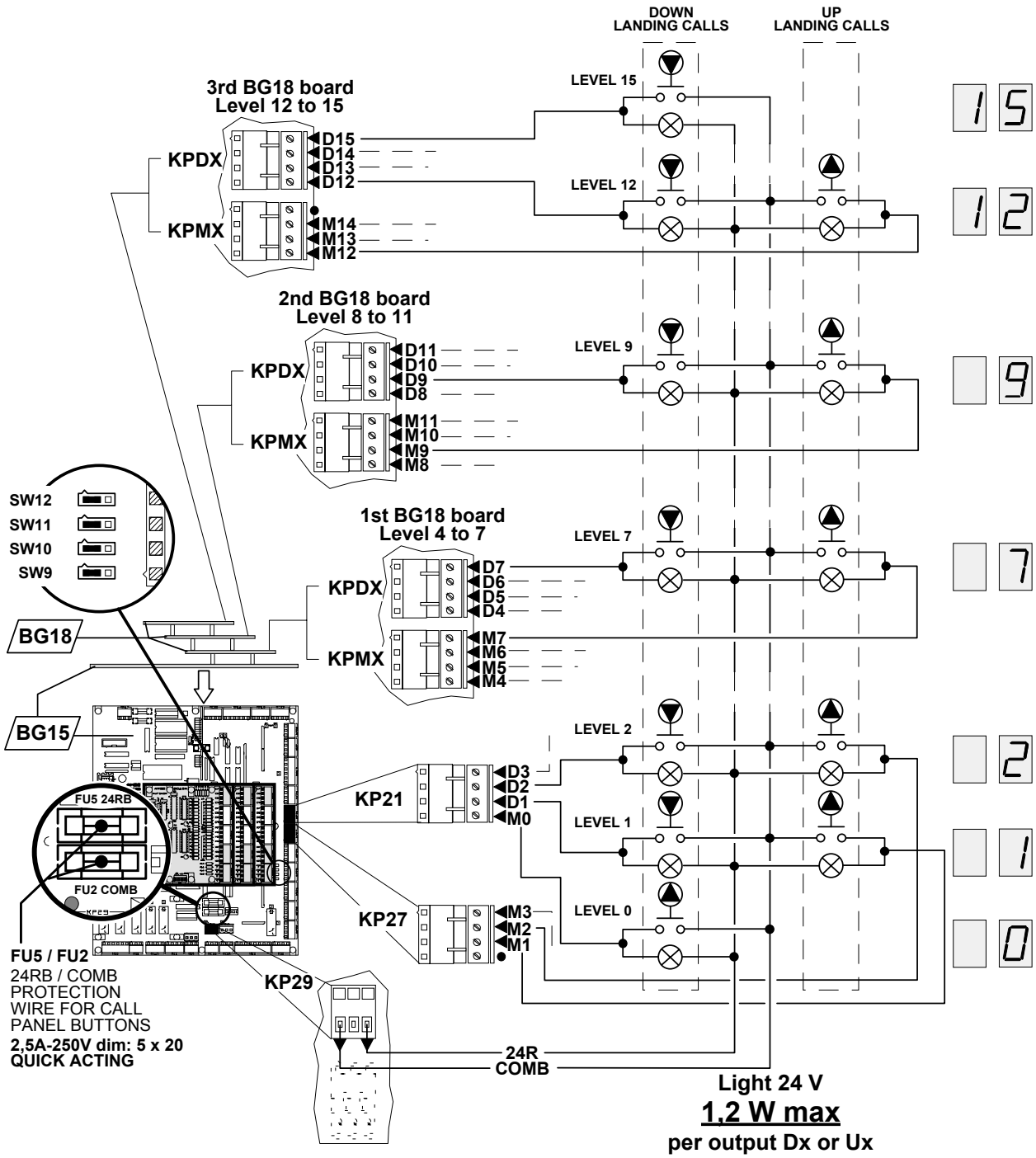
Mask the landing calls for « Down »

Add. **17**

Seg. **0 to 7**

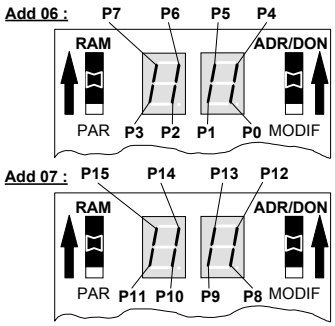


LANDING CALLS FOR FULL COLLECTIVE OPERATION, 2 TO 16 LEVELS (2/2)

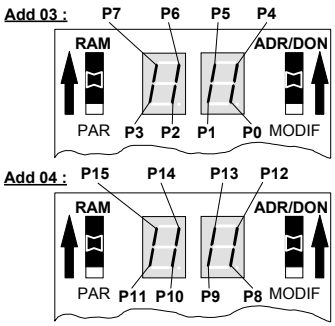


Landing calls connection

Px - APPALD
« Down » landing calls
Add. **06 & 07**
Seg. **0 to 7**



Px - APPALM
« Up » landing calls
Add. **03 & 04**
Seg. **0 to 7**



Landing calls preview

DOUBLE SELECTIVE SERVICE LANDING CALLS (1/3)

Principe:

The notion of double selective service is to made a selective opening of the front or rear door.

This require 2 car buttons box (one for each side !).

In the same way, for the landing calls, it must be possible to connect together the front and rear door for a same floor

When the 32 serie is meant to drive 2 selective service, it is necessary to 'split' the car and landings calls.

The 32 serie can delivered **16 levels** maxi. (BG15 + 3 BG18 floor boards) on **Single or Double non selective service**, this capacity is reduce at **8 Levels** in case of **double selective service**.

Note:

- To create a controller with **2** to **4 Levels** on **Double Selective Service**, You needs the main board **BG15 + 1 BG18 levels boards**;
- To create a controller with **5** to **8 Levels** on **Double Selective Service**, You needs the main board **BG15 + 3 BG18 levels boards**.

	LEVEL	CAR				DOWN LANDING				UP LANDING			
		BG15	BG18 (1)	BG18 (2)	BG18 (3)	BG15	BG18 (1)	BG18 (2)	BG18 (3)	BG15	BG18 (1)	BG18 (2)	BG18 (3)
	7			**C7**				**D7**				**X**	
F	6			**C6**				**D6**				**M6**	
A	5			**C5**				**D5**				**M5**	
C	4			**C4**				**D4**				**M4**	
E	3	**C3**				**D3**				**M3**			
	2	**C2**				**D2**				**M2**			
1	1	**C1**				**D1**				**M1**			
	0	**C0**				**M0**				**X**			
	7				**C7**				**D7**				**X**
F	6				**C6**				**D6**				**M6**
A	5				**C5**				**D5**				**M5**
C	4				**C4**				**D4**				**M4**
E	3		**C7**				**D7**				**M7**		
	2		**C6**				**D6**				**M6**		
2	1		**C5**				**D5**				**M5**		
	0		**C4**				**D4**				**X**		

EXAMPLE: CONNECTION FOR A CONFIGURATION OF 4 LEVEL

CONCERNING THE CAR CALLS:

The inputs **C0** to **C3** (*BG15*, KC21) correspond at the calls for the level **0** to **3** of the **front door**.
The inputs **C4** to **C7** (*BG18 (1)*, KCx) correspond at the calls for the level **0** to **3** of the **rear door**.

CONCERNING THE LANDING CALLS FOR DOWN:

The inputs **M0**, **D1** to **D3** (*BG15*, KP21) correspond at the calls for the level **0** to **3** of the **front door**.
The inputs **D4** to **D7** (*BG18 (1)*, KPDx) correspond at the calls for the level **0** to **3** of the **rear door**.

CONCERNING THE LANDING CALLS FOR UP:

The inputs **M1** to **M3** (*BG15*, KP27) correspond at the calls for the level **1** to **3** of the **front door**.
The inputs **M5** to **M7** (*BG18 (1)*, KPMx) correspond at the calls for the level **1** to **3** of the **rear door**.

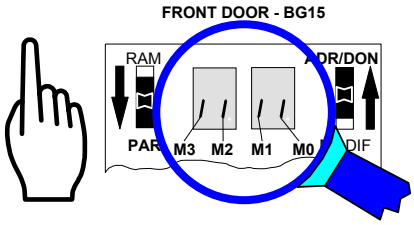
If there is no door at some level, of course, there is nothing connecting on the corresponding input!!!

DOUBLE SELECTIVE SERVICE LANDING CALLS (2/3)

FRONT DOOR N°1

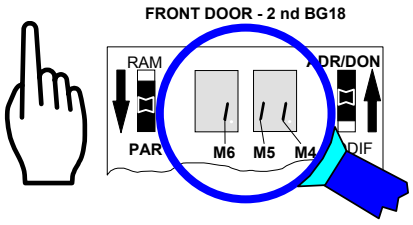
For the mask, to switch on the segment corresponding to the active buttons and Direction

MSQMO
Mask the landing calls for « Up »
Add. **13**
Seg. **0 to 3**

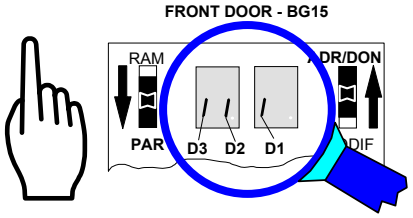


&

Add. **14**
Seg. **0 to 2**

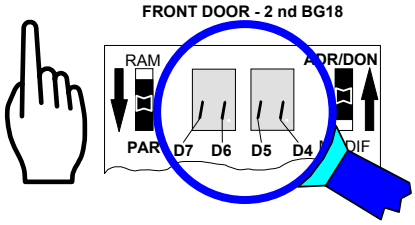


MSQDE
Mask the landing calls for « Down »
Add. **16**
Seg. **1 to 3**

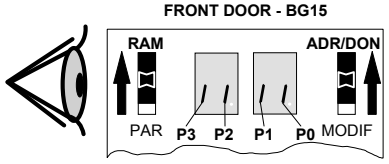


&

Add. **17**
Seg. **0 to 3**

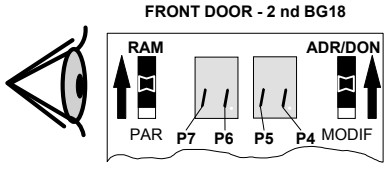


Px - APPALM
« Up » landing calls
Add. **03**
Seg. **0 to 3**

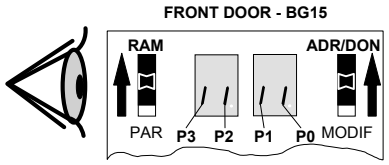


&

Add. **04**
Seg. **0 to 3**

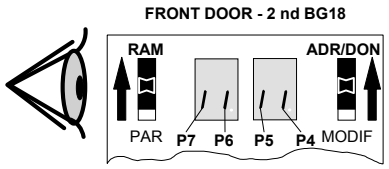


Px - APPALD
« Down » landing calls
Add. **06**
Seg. **0 to 3**



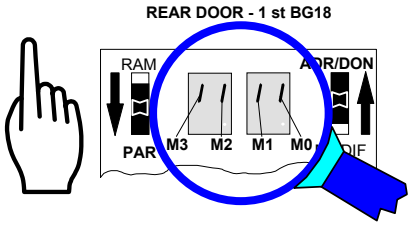
&

Add. **07**
Seg. **0 to 3**



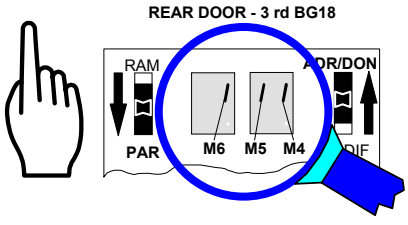
REAR DOOR N°2

MSQMO
Mask the landing calls for « Up »
Add. **13**
Seg. **4 to 7**

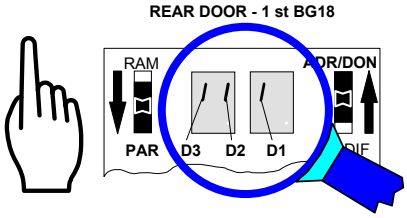


&

Add. **14**
Seg. **4 to 6**

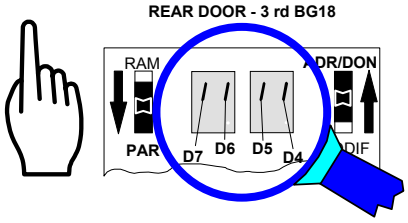


MSQDE
Mask the landing calls for « Down »
Add. **16**
Seg. **5 to 7**

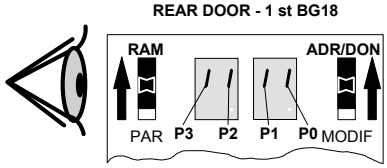


&

Add. **17**
Seg. **4 to 7**

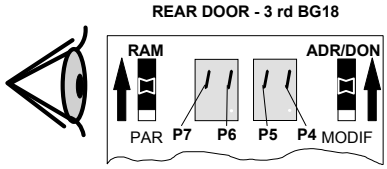


Px - APPALM
« Up » landing calls
Add. **03**
Seg. **4 to 7**

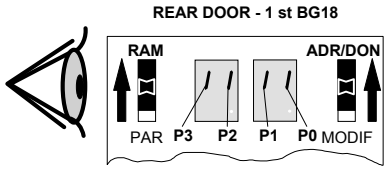


&

Add. **04**
Seg. **4 to 7**

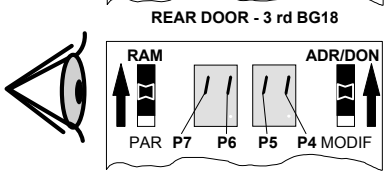


Px - APPALD
« Down » landing calls
Add. **06**
Seg. **4 to 7**



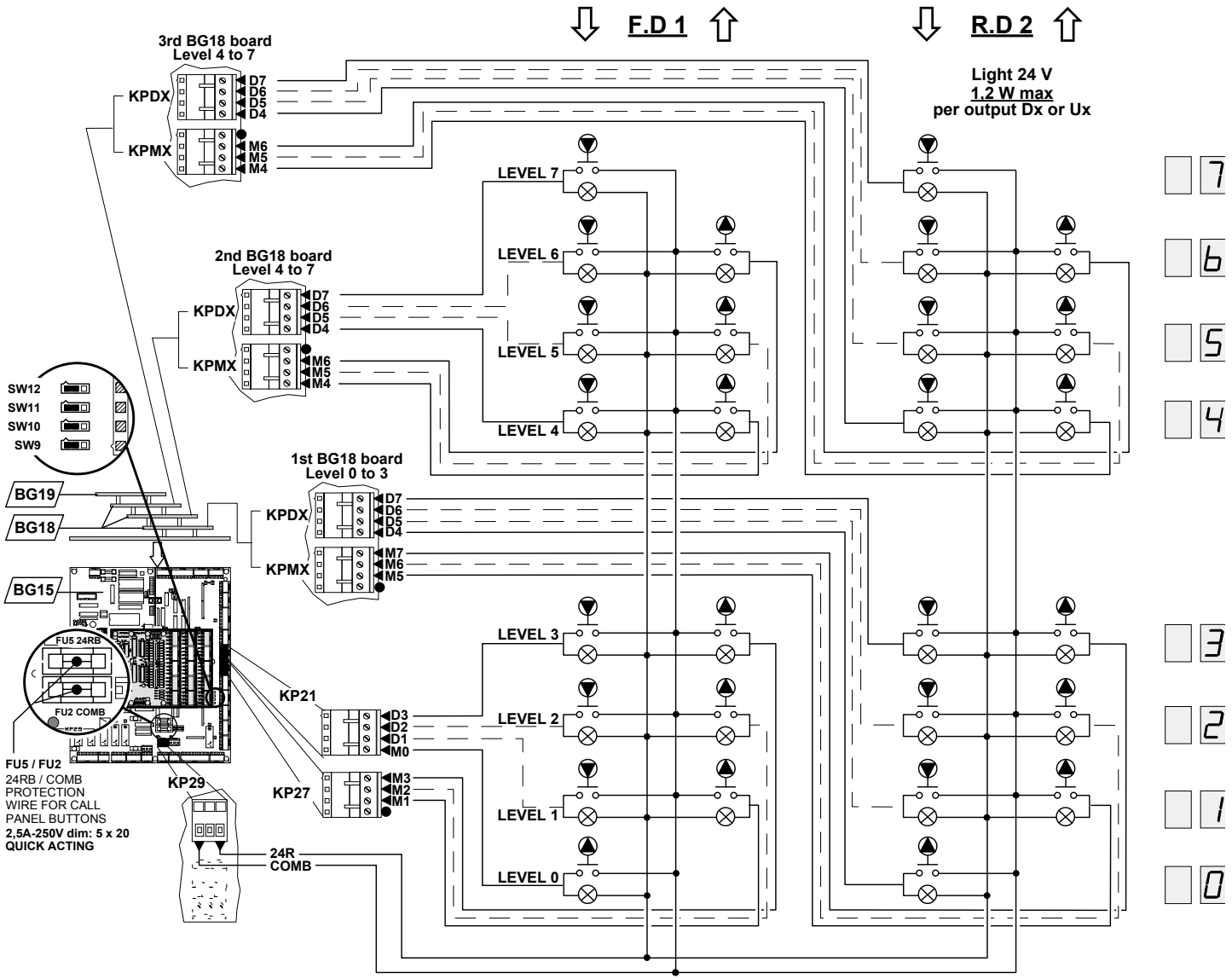
&

Add. **07**
Seg. **4 to 7**



Landing calls preview

DOUBLE SELECTIVE SERVICE LANDING CALLS (3/3)

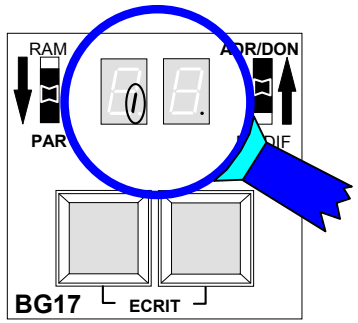


DSERVS

Double Selective SERVice?

Add. **02**

Seg. **2**



Double selective service landing calls connection

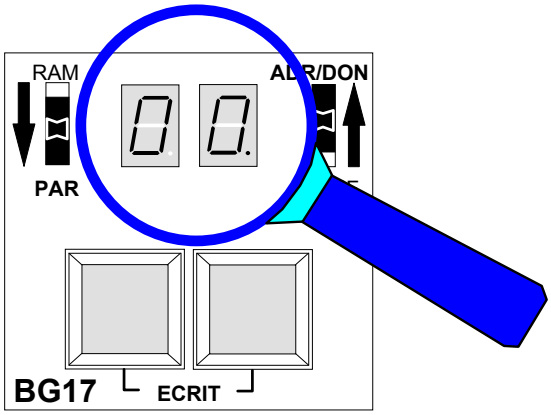
ID 30 MODEL, LANDING POSITION INDICATOR

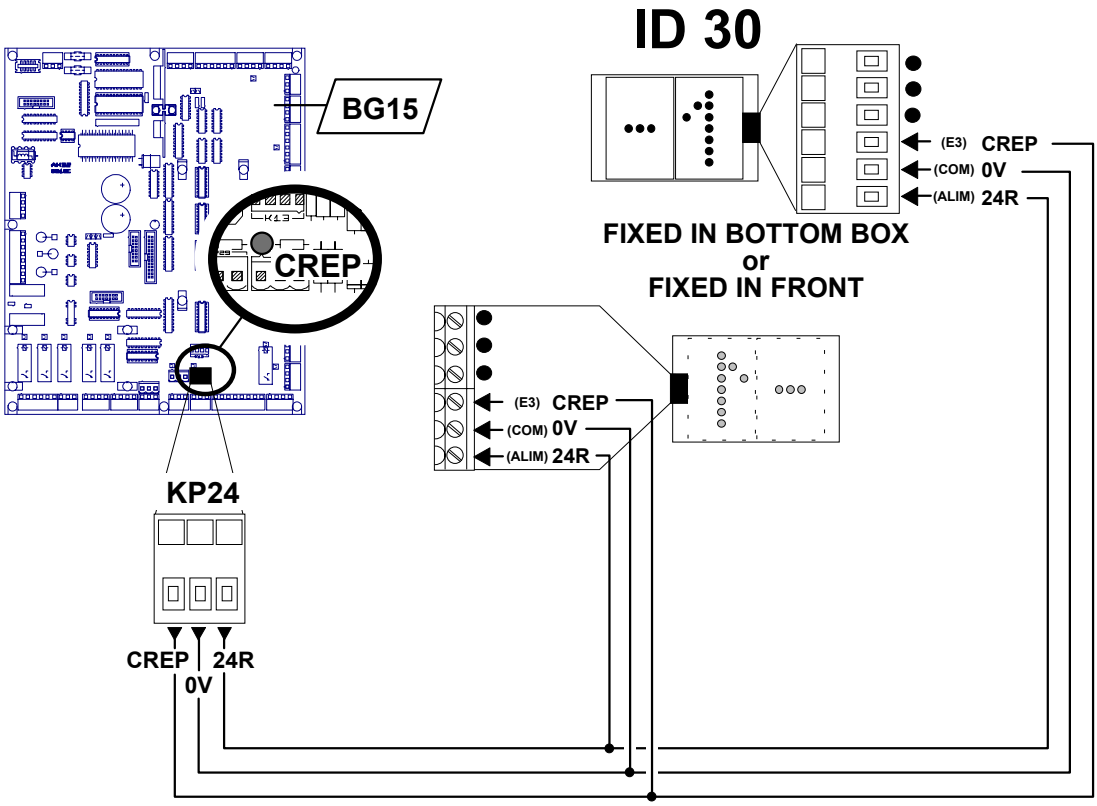
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



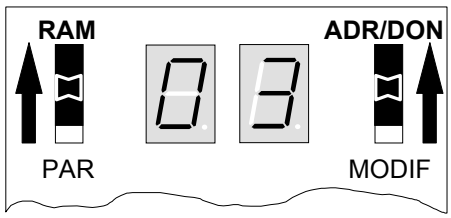


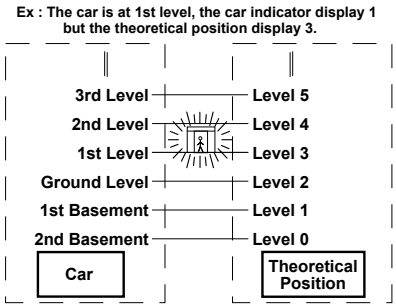
ID 30 model, position indicator connection

POSLOG

Theoretical POSition of the lift

Add. **24**





« Theoretical position » preview

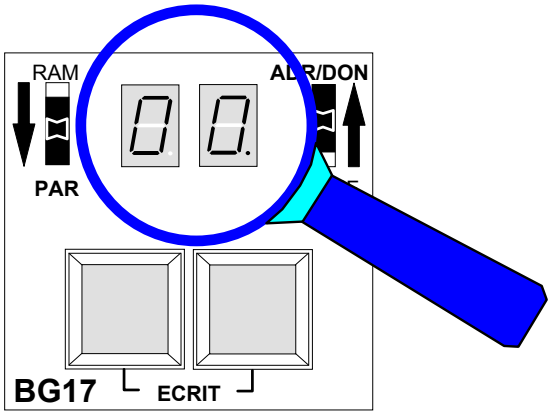
ID 50-1 MODEL, LANDING POSITION INDICATOR

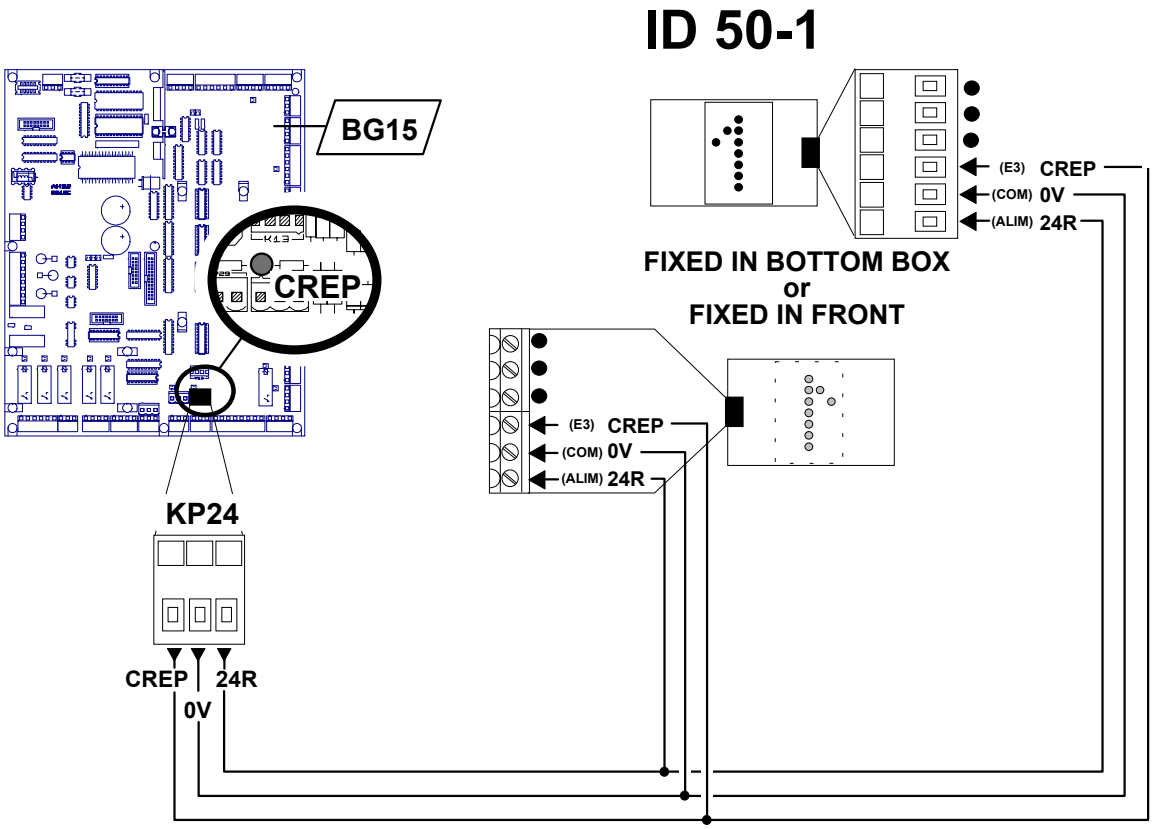
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



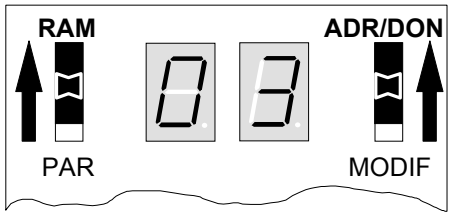


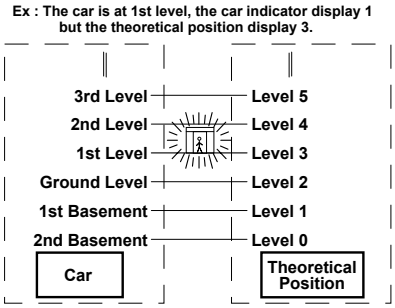
ID 50-1 model, position indicator connection

POSLOG

Theoretical POSition of the lift

Add. **24**





« Theoretical position » preview

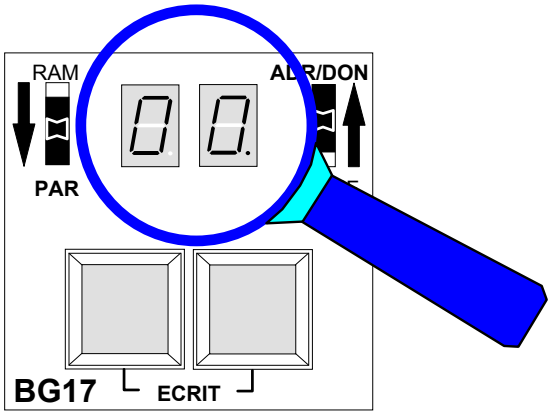
ID 50 MODEL, LANDING POSITION INDICATOR

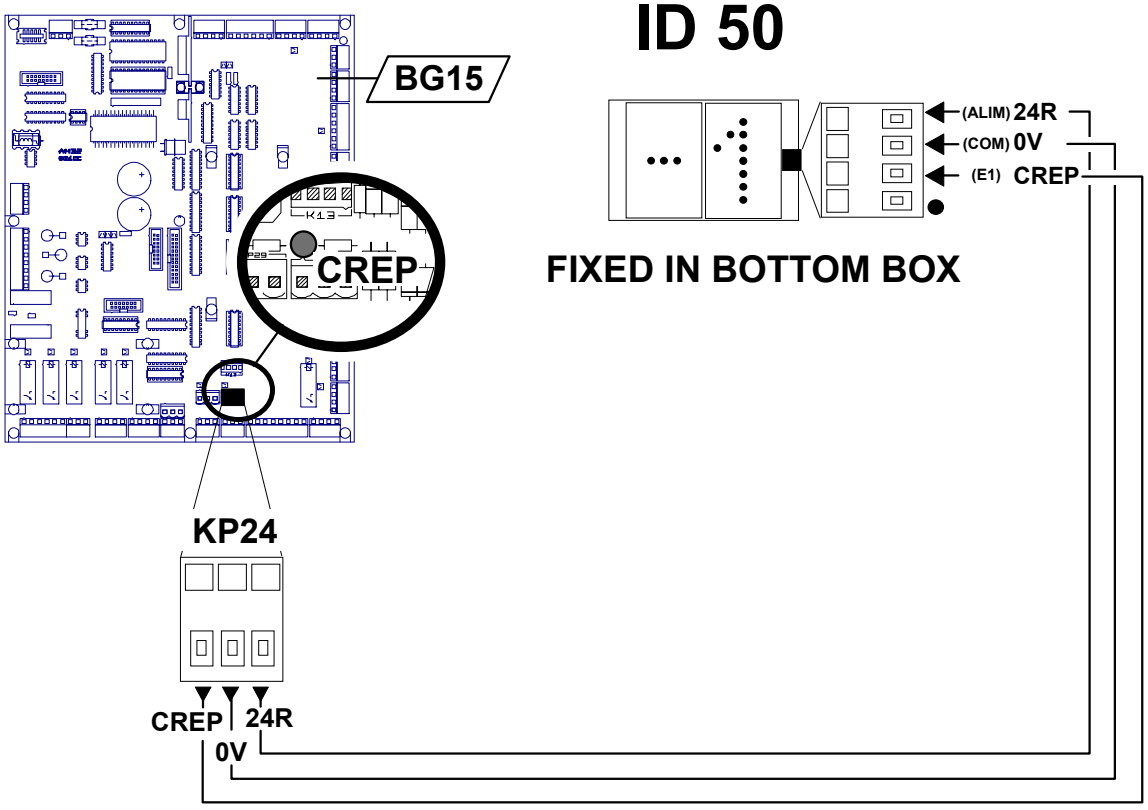
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



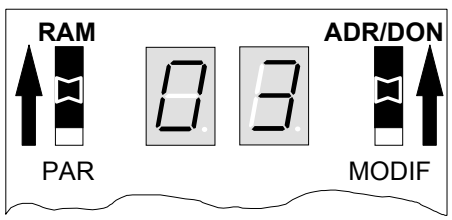


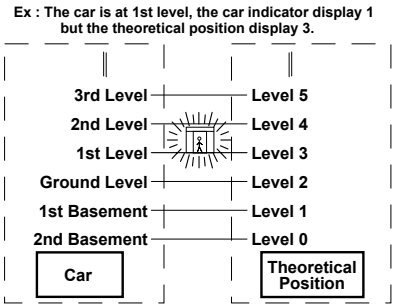
ID 50 model, position indicator connection

POSLOG

Theoretical POSition of the lift

Add. **24**





« Theoretical position » preview

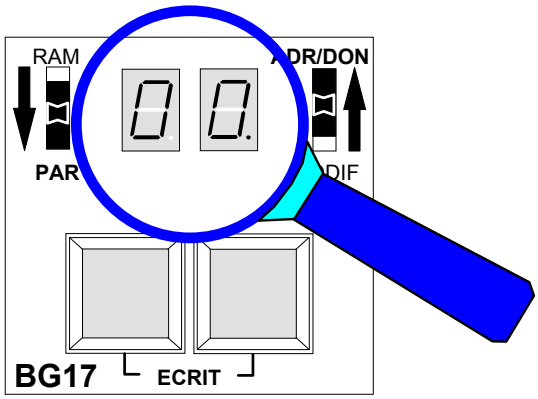
IDFL 30 / 50 MODEL, LANDING POSITION INDICATOR WITH ARROWS

REPTxx

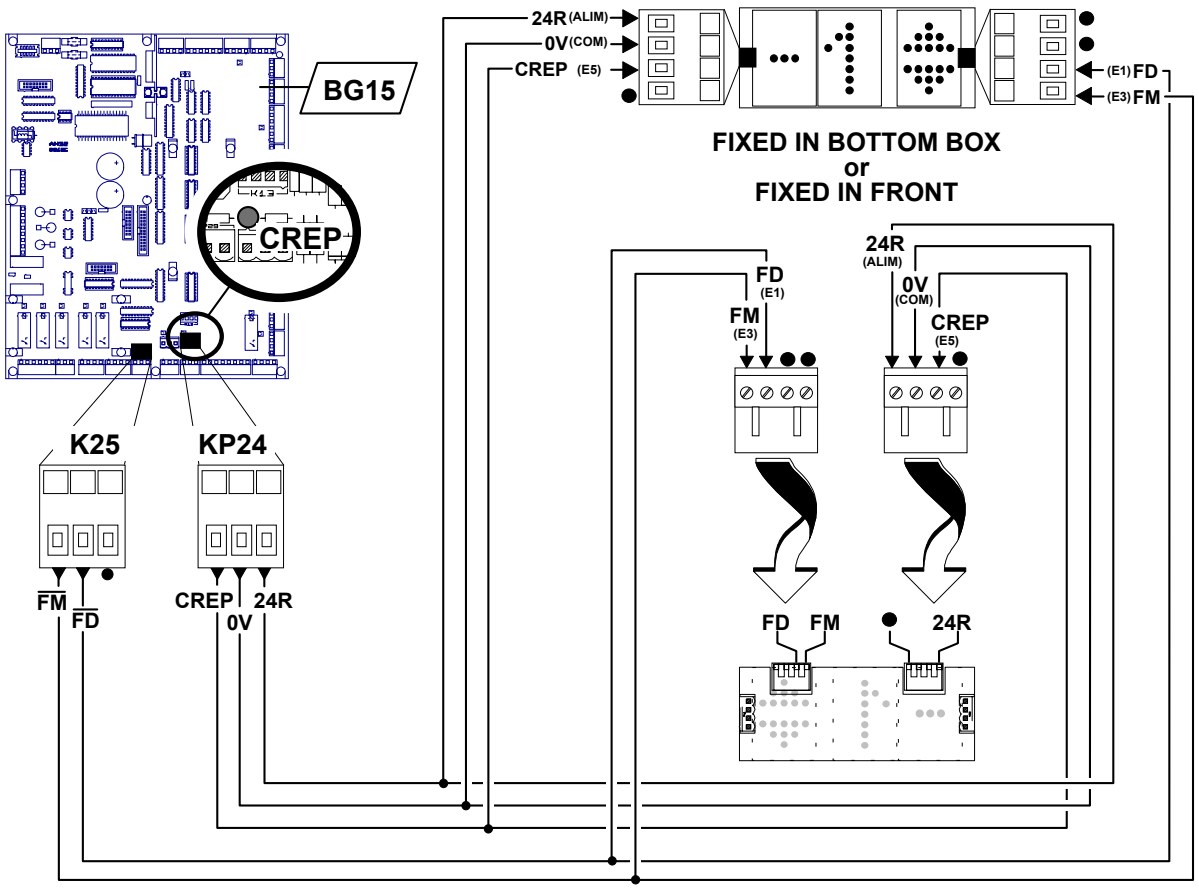
REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



IDFL 30 / 50

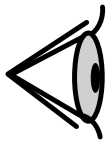


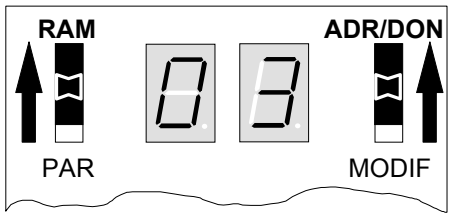
IDFL 30 / 50 model, position indicator connection

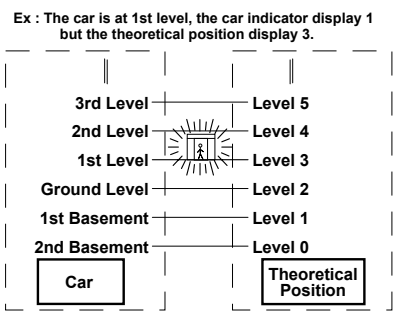
POSLOG

Theoretical POSition of the lift

Add. **24**







« Theoretical position » preview

STANDARD PROGRAMMING

Level	Address
15	37
14	36
13	35
12	34
11	33
10	32
9	31
8	30
7	2F
6	2E
5	2d
4	2C
3	2b
2	**2A**
1	29
0	28

Displayed on digital indicator	Code to be programmed into the controller
0	00
1	01
2	02
3	03
4	04
5	05
6	06
7	07
8	08
9	09
10	0A
11	0b
12	0C

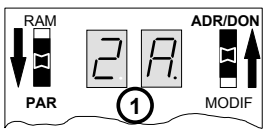
Displayed on digital indicator	Code to be programmed into the controller
13	0d
14	0E
15	0F
16	10
17	11
18	12
19	13
-0	14
-1	15
-2	16
-3	17
-4	18
-5	19

Displayed on digital indicator	Code to be programmed into the controller
ES	1A
RJ	1b
RC	**1C**
RH	1d
RB	1E
SS	1F
P0	20
P1	21
P2	22
P3	23
RS	24
ME	25

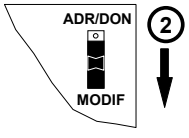
<u>EXAMPLE</u>: Configuration for an installation of 8 LEVELS including 2 BASEMENT.

If at Level **2** - Ground Level (Address **2A**), we desire « **RC** » displayed, we program **1C** to parameter address **2A** (REPTxx : <u>REPeaT</u>er at level <u>xx</u>).

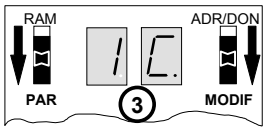
❶ Select address **2A** corresponding to the **2**nd level with Push buttons.



❷ 1 second later, a value is displayed, if this value suits you (our example **1C**) Don't change it, if not, slide the **ADR/DON** - **MODIF** switch to **MODIF**

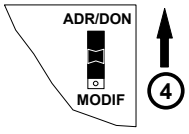


❸ Modify the value to obtain **1C** with push buttons to increase/decrease to the new value.
Register the new value by pushing and releasing both buttons **<u>at the same time</u>**.



❹ Slide the **ADR/DON - MODIF** switch to **ADR/DON**

The new value is memorised.



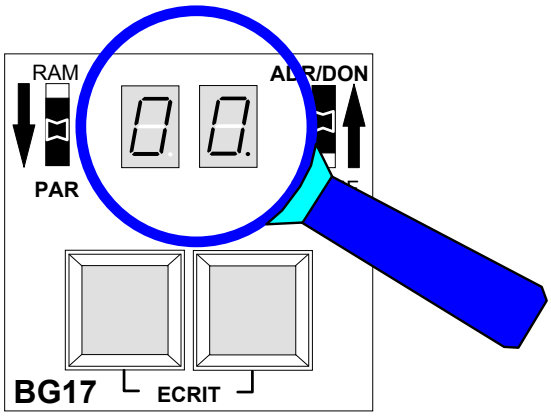
IDFL 30 / 50 MD MODEL, LANDING POSITION INDICATOR WITH SCROLLING MESSAGES ARROWS

REPTxx

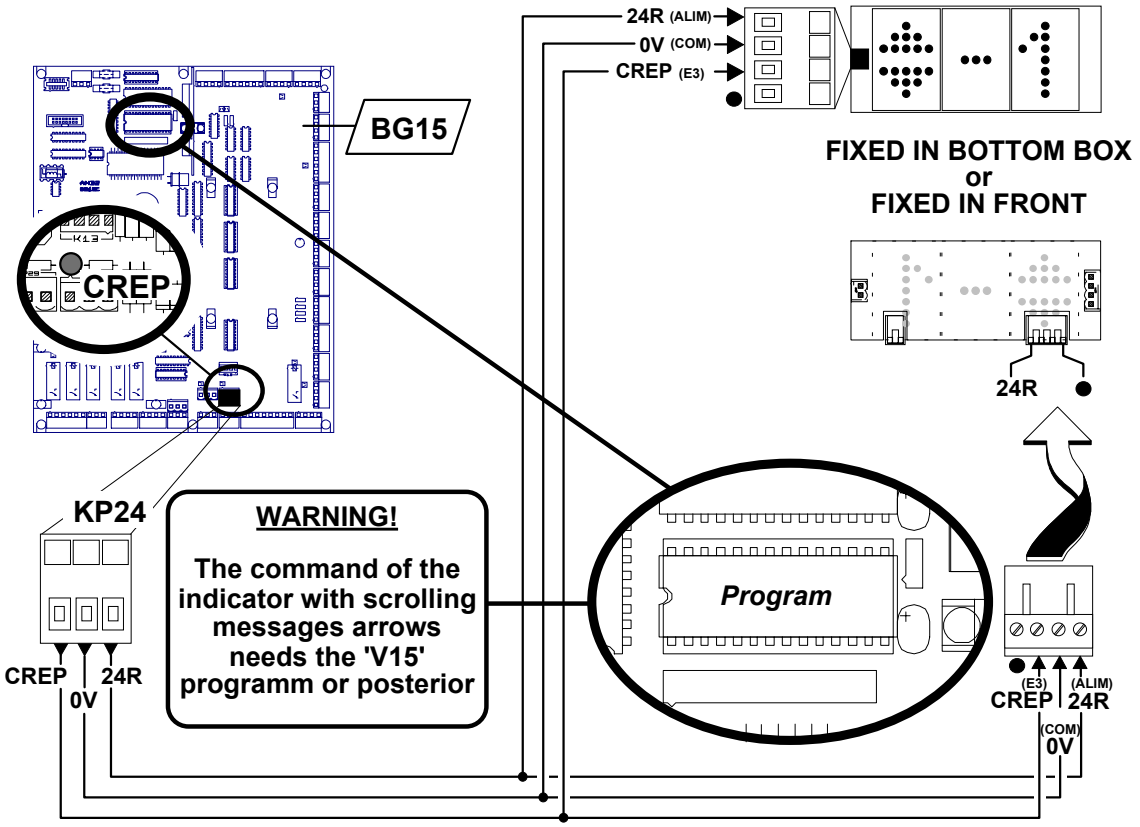
REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



IDFL 30 / 50 MD

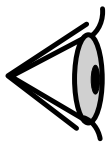


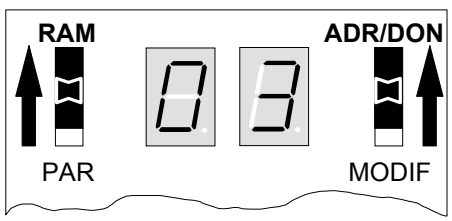
IDFL 30 / 50 MD model, position indicator connection

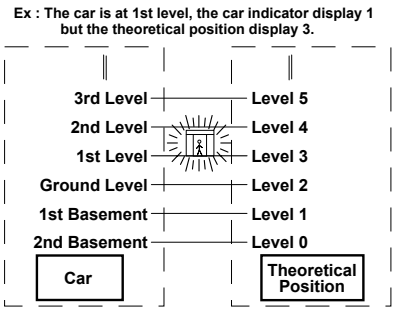
POSLOG

Theoretical POSition of the lift

Add. **24**







« Theoretical position » preview

POSITION INDICATOR WITH SCROLLING MESSAGES ARROWS PROGRAMMING

Repère du graphisme	F MDCREP1	D MDCREP3	G B MDCREP4	S P MDCREP7
40	Ø	Ø	Ø	Ø
41	1	1	1	1
42	2	2	2	2
43	3	3	3	3
44	4	4	4	4
45	5	5	5	5
46	6	6	6	6
47	7	7	7	7
48	8	8	8	8
49	9	9	9	9
4A	1Ø	1Ø	1Ø	1Ø
4B	11	11	1 1	11
4C	12	12	1 2	12
4D	13	13	1 3	13
4E	14	14	1 4	14
4F	15	15	1 5	15
50	16	16	1 6	16
51	17	17	1 7	17
52	18	18	1 8	18
53	19	19	1 9	19
54	-Ø	-Ø	- Ø	-Ø
55	-1	-1	- 1	-1
56	-2	-2	- 2	-2
57	-3	-3	F	-3
58	-4	-4	U B	-4
59	-5	-5	B	-5
5A	ES	F	E	ES
5B	RJ	H	G	RJ
5C	RC	U	L G	RC
5D	RH	B	M	RH
5E	RB	E	L B	RB
5F	SS	G	A	SS
60	P0	K	C	P0
61	P1	LG	D	P1
62	P2	M	B 1	P2
63	P3	OG	B 2	P3
64	RS	P	O S	RS
65	ME	UG	2 Ø	ME
66	P4	W	2 1	P4
67	P5	EG	2 2	P5
68	P6	DG	2 3	P6
69	P7	SG	- 3	P7
6A	P8	U1	U G	P8
6B	P9	U2	P	P9
6C	2Ø	O1	H	2Ø
6D	21	O2	K	21
6E	22	O3	L	22
6F	23	O4	B 3	23
70				
71				
72	HORS SERVICE	AUSSER BETRIEB	OUT OF SERVICE	SIN SERVICIO
73	SERVICE INCENDIE	BRANDFALLSTEUERUNG	FIRE CONTROL	BOMBEROS
74	CABINE RESERVEE	SONDERFAHRT	SPECIAL SERVICE	PRIORIDAD CABINA
75	LIBRE	MDCREP3-P / MDCREP3-C ÜBERLAST	IN SERVICE	ELECTRA VITORIA

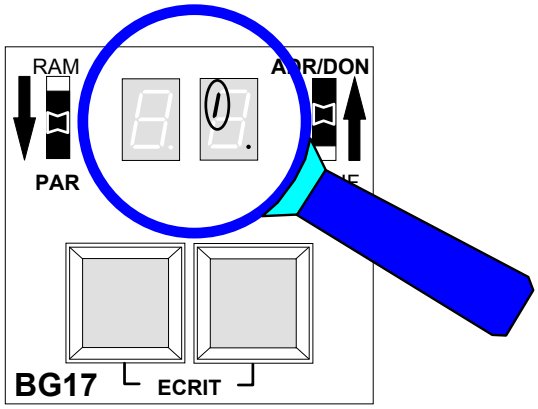
FL 30 / 50 MODEL, LANDING DIRECTION ARROWS

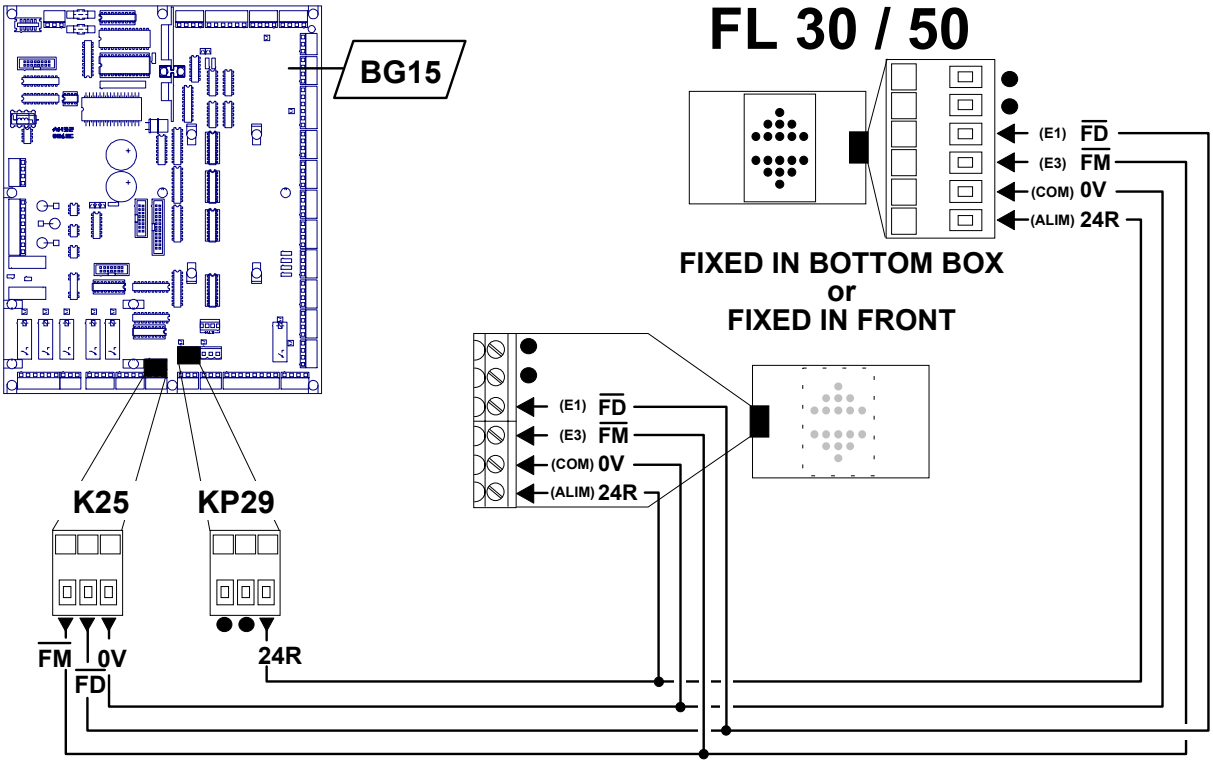
FLCLIG

Direction indicator flashing

Add. **08**

Seg. **5**





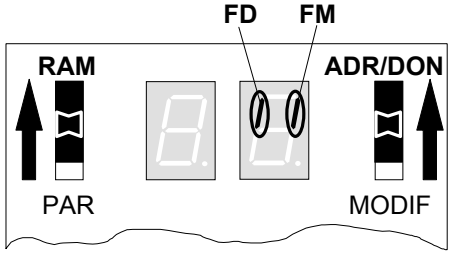
FL 30 / 50 model, direction arrows connection

FM & FD

Up arrow & Down arrow

Add. **15**

Seg. **4** and **5**



FL 30 / 50 model, direction arrows state preview

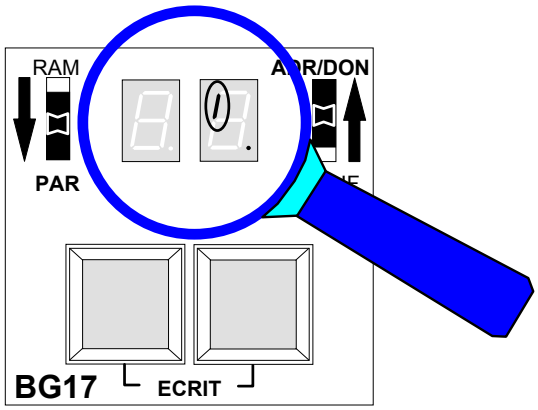
MODEL WITH LIGHT LESS THAN TO 1,2 W (TOTAL 2,4 W MAX), LANDING DIRECTION ARROWS

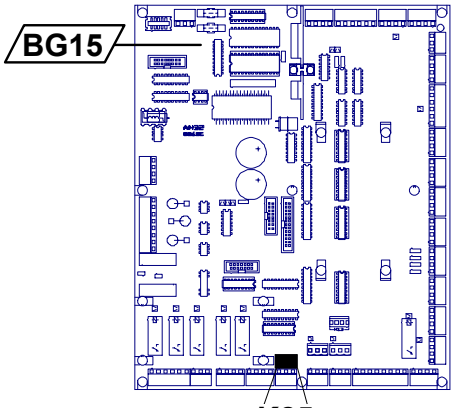
FLCLIG

Direction indicator flashing

Add. **08**

Seg. **5**





WARNING !!!
Light 24 V
2,4 W max.
PER SENS
Dont forget the possible arrows in car

In case of overload of the admissible nominal power (2,4 W) Connect 1 P217 box PER SENS

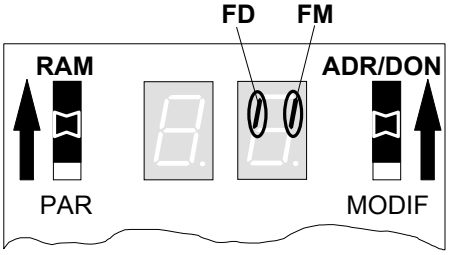
Direction arrows connection

FM & FD

Up arrow & Down arrow

Add. **15**

Seg. **4** to **5**



Direction arrows state preview

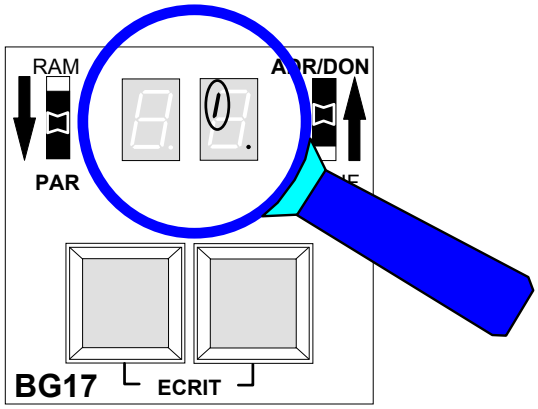
MODEL WITH LIGHT SUPERIOR TO 1,2 W (TOTAL 2,4 W MAX), LANDING DIRECTION ARROWS

FLCLIG

Direction indicator flashing

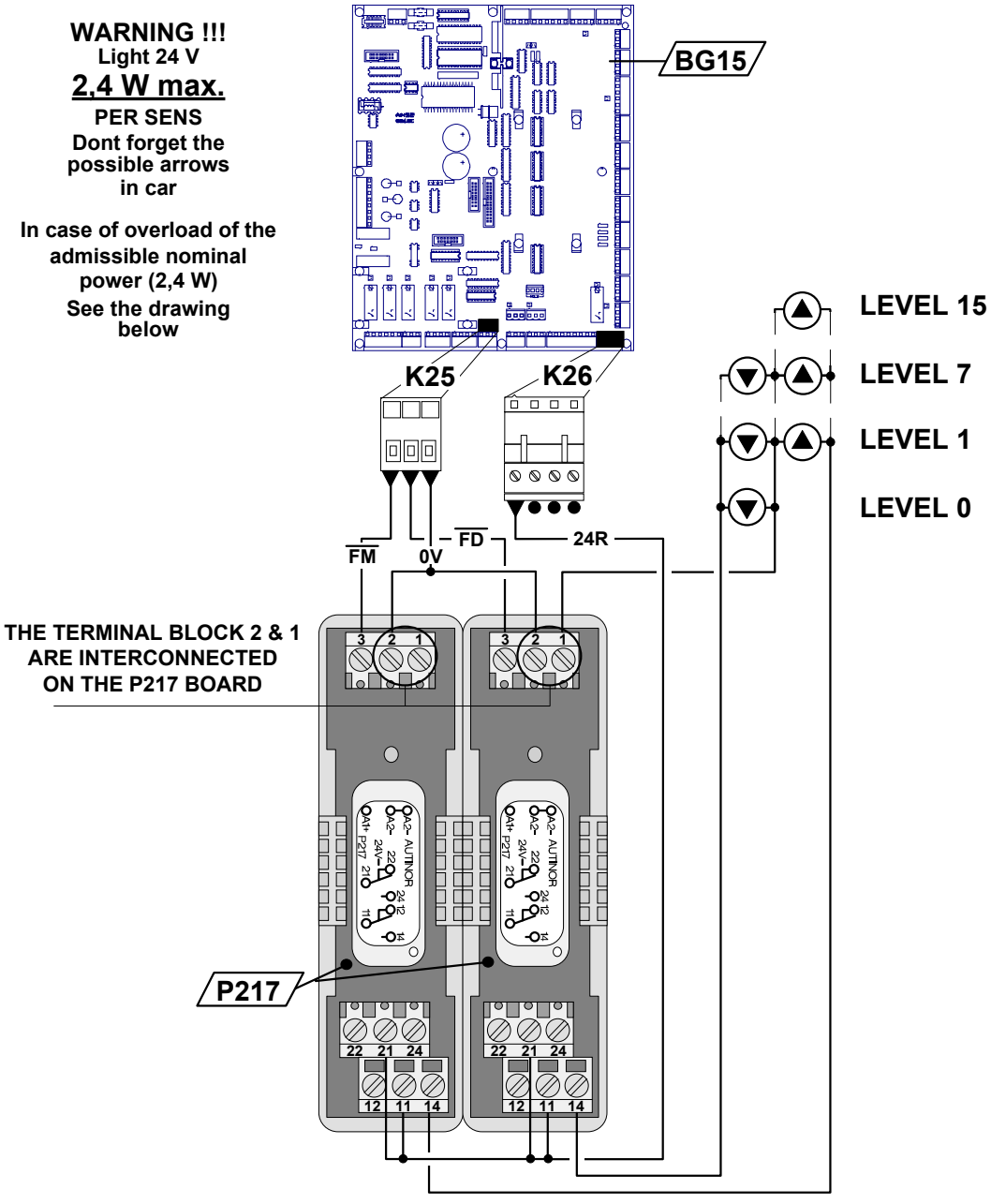
Add. **08**

Seg. **5**



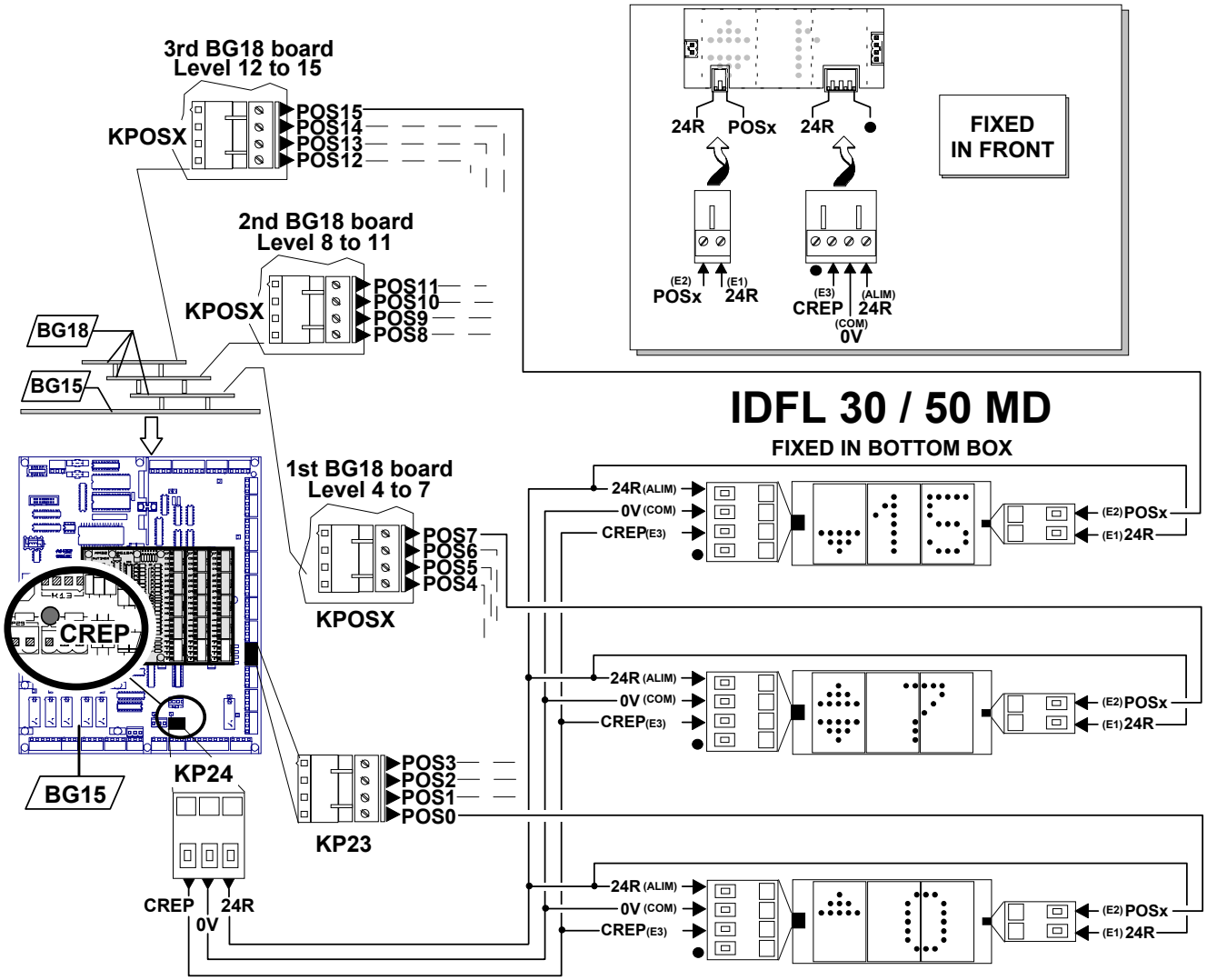
WARNING !!!
Light 24 V
2,4 W max.
PER SENS
Dont forget the possible arrows in car

In case of overload of the admissible nominal power (2,4 W) See the drawing below



Direction arrows connection

IDFL 30/50 MD MODEL, NEXT DEPARTURE ARROWS WITH SCROLLING MESSAGES (1/3)



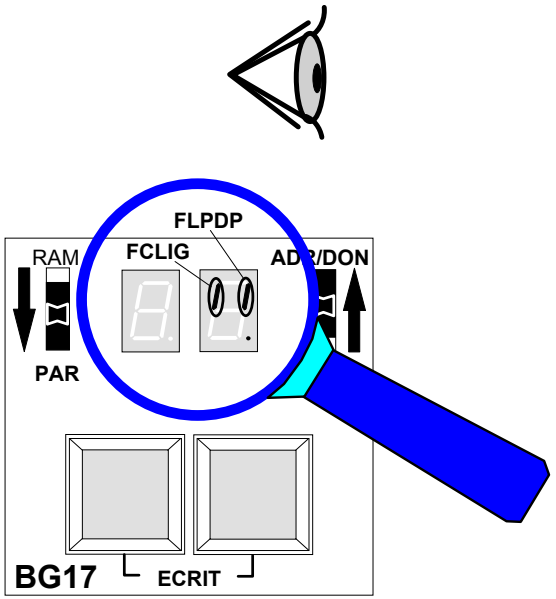
Next departure arrows with scrolling messages connection

FLPDP & FLCLIG

Next departure arrows & Direction indicator flashing

Add. **08**

Seg. **4** and **5**



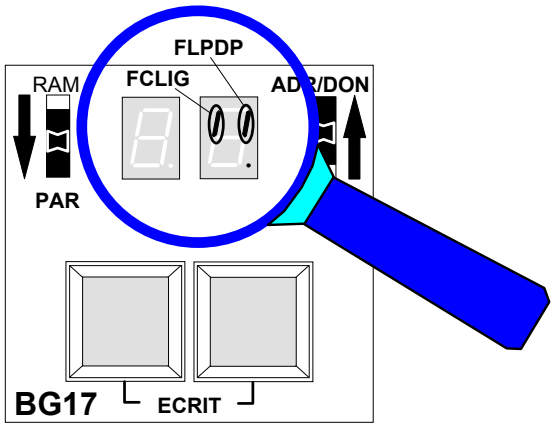
NEXT DEPARTURE ARROWS WITH LIGHT (2/3)

FLPDP & FLCLIG

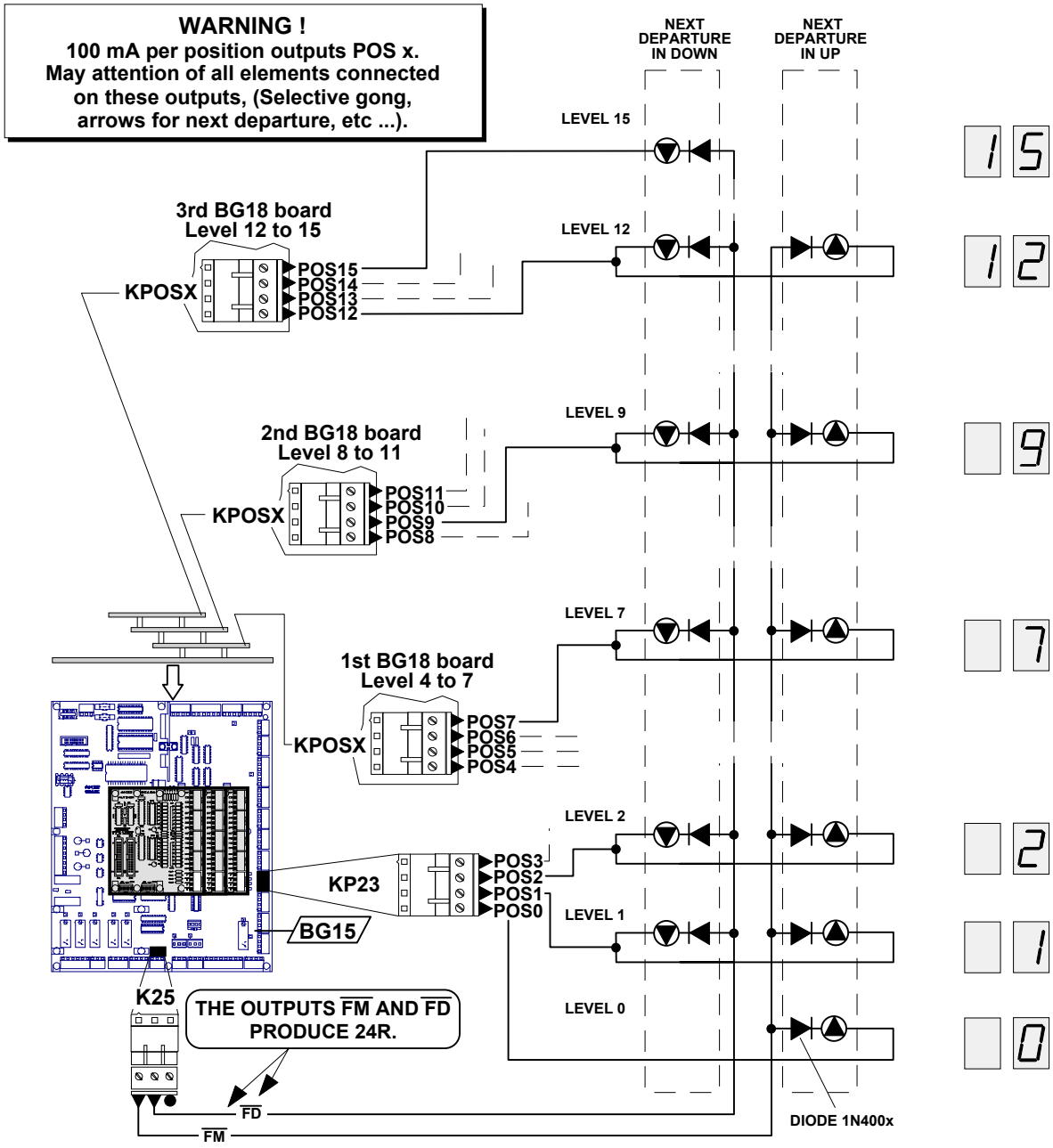
Next departure arrows & Direction indicator flashing

Add. **08**

Seg. **4** and **5**



WARNING !
100 mA per position outputs POS x. May attention of all elements connected on these outputs, (Selective gong, arrows for next departure, etc ...).



Next departure arrows connection

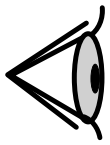
NEXT DEPARTURE ARROWS (3/3)

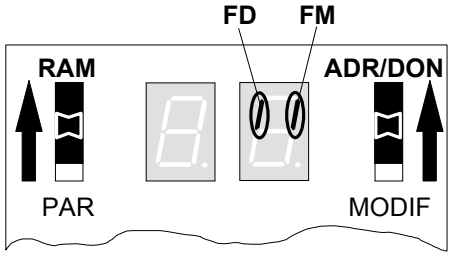
FM & FD

Up arrow & Down arrow

Add. **15**

Seg. **4** to **5**





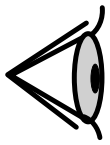
Direction arrows preview

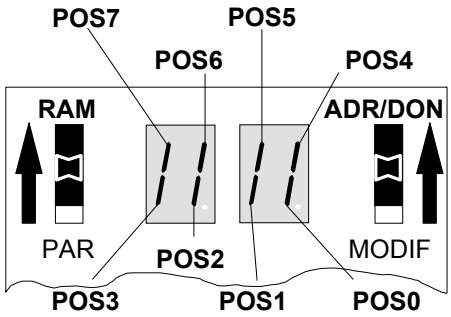
POS0-7

POSition outputs POS0 to POS7

Add. **1F**

Seg. **0** to **7**





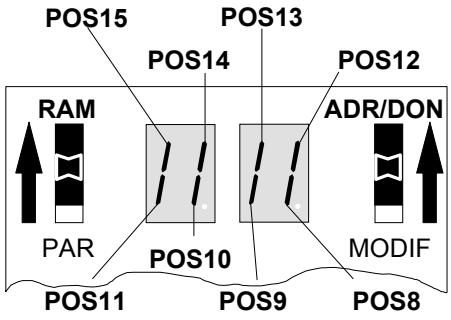
Level 0 to 7, position outputs preview

POS8-15

POSition outputs POS8 to POS15

Add. **20**

Seg. **0** to **7**



Level 8 to 15, position outputs preview

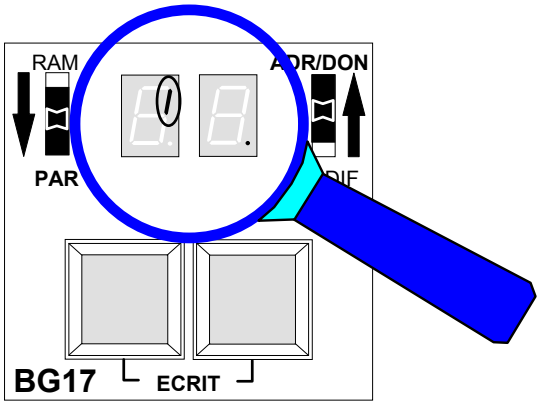
LANDING SELECTIVE GONG (1/2)

GONGAR

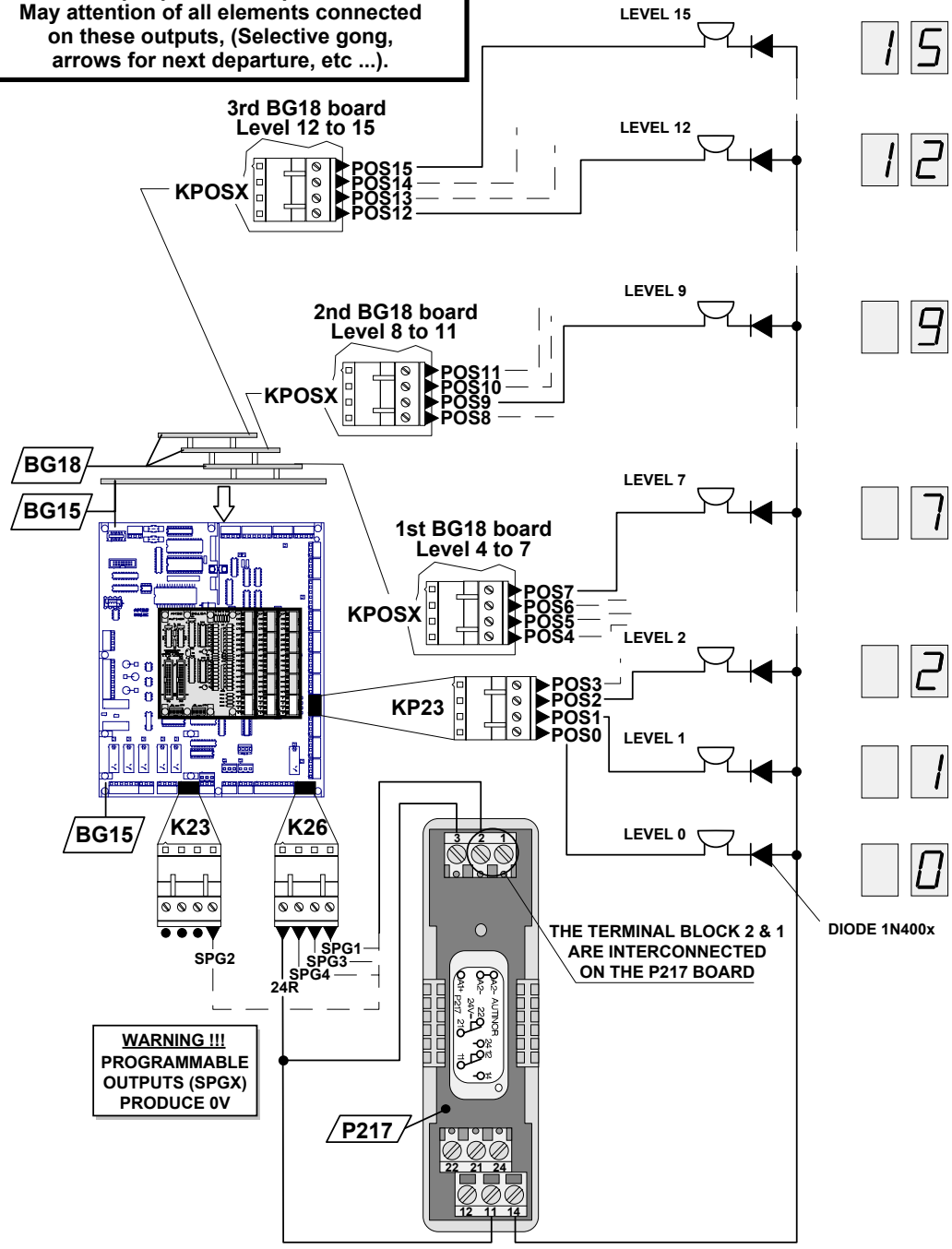
GONG on stopping?

Add. **09**

Seg. **7**



WARNING !
100 mA per position outputs POS x.
May attention of all elements connected on these outputs, (Selective gong, arrows for next departure, etc ...).



Landing « Selective gong »

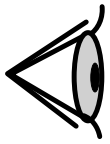
LANDING SELECTIVE GONG (2/2)

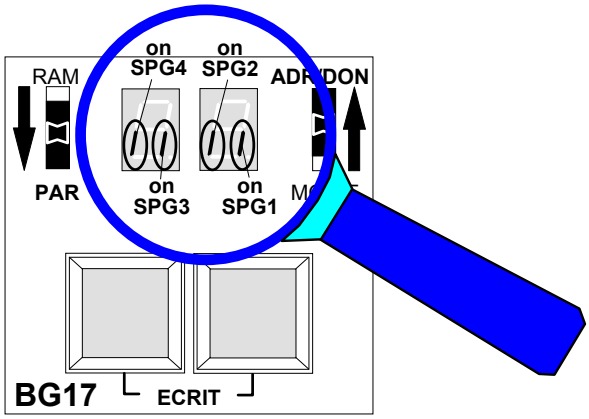
GONGx

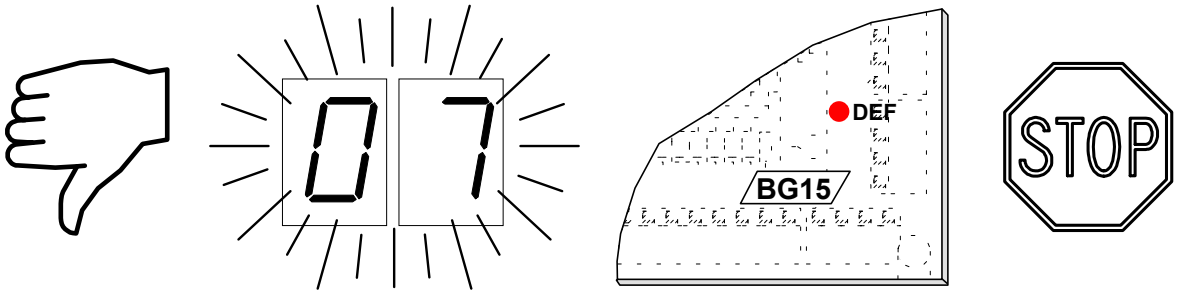
GONG on Programmable outputs xx

Add. **79**

Seg. **0** to **3**







Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

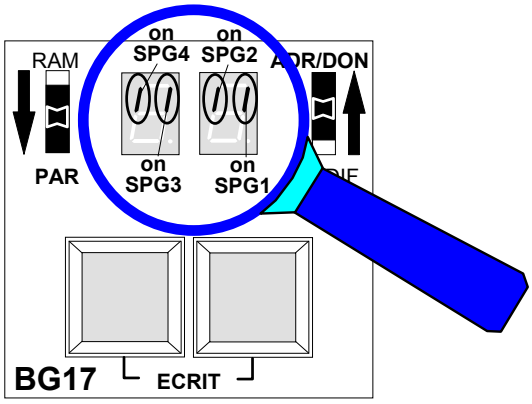
LANDING OUT OF SERVICE LIGHT (1/2)

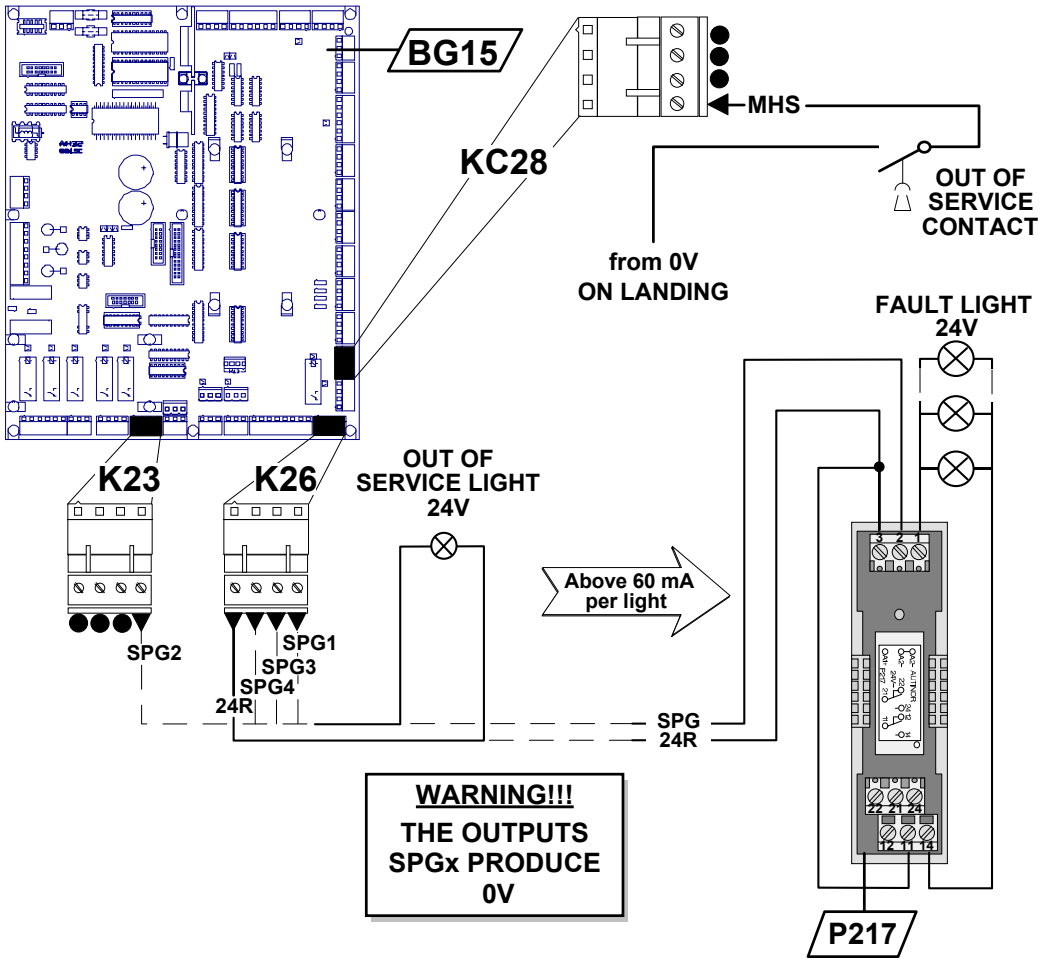
VHS

Out of service light on SPGx

Add. **79**

Seg. **4** to **7**





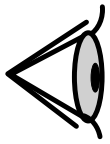
« Out of service » contact and light connection

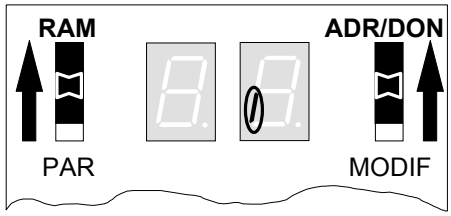
VHS

Out of service light

Add. **15**

Seg. **1**





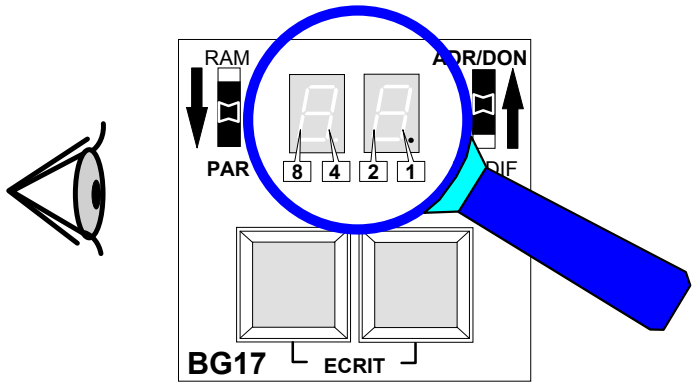
Out of service light state preview

LANDING OUT OF SERVICE LIGHT (2/2)

NIVMHS

Out of service level

Add. **43**



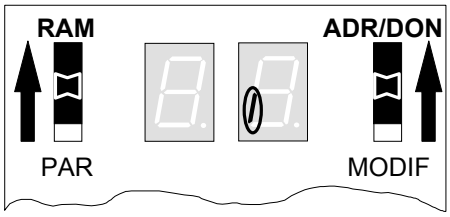
Out of service level choice (in hexadecimal mode)

MHS

Out of service

Add. **0E**

Seg. **1**



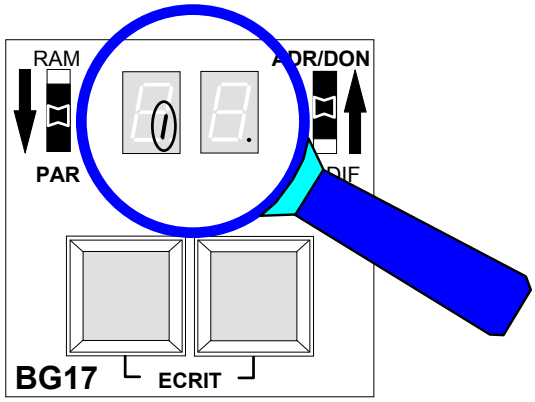
Out of service contact state preview

MHSPF

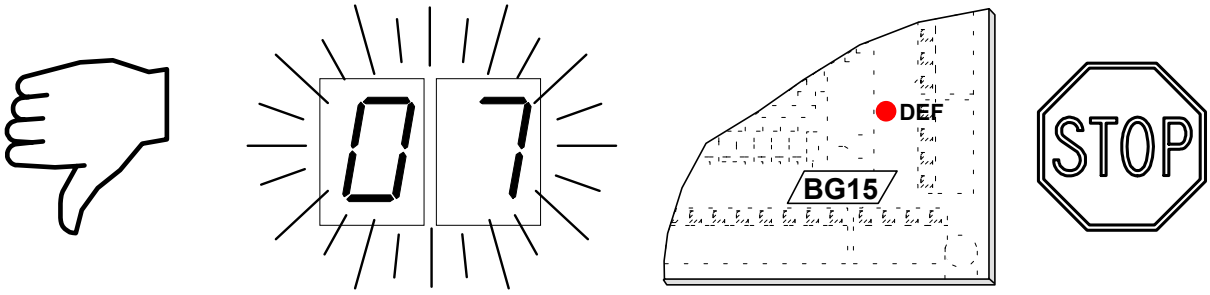
Out of service door closed?

Add. **09**

Seg. **2**

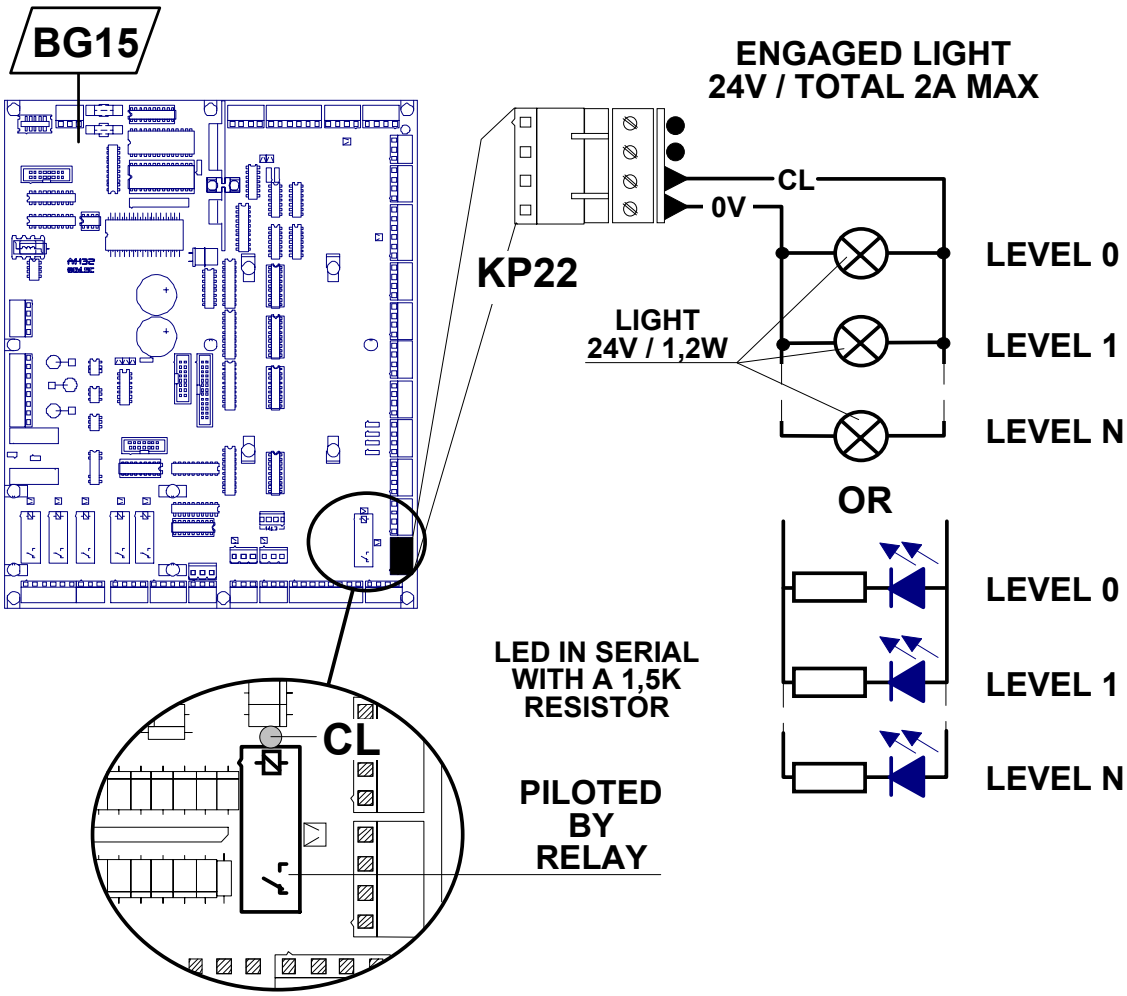


Out of service door closed choice



Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

LANDING « ENGAGED » LIGHT



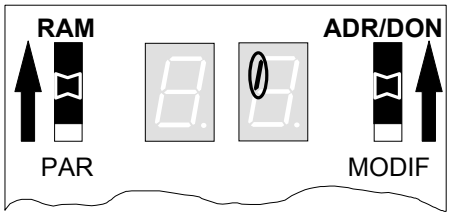
Landing « engaged » light connection

CL

Engaged light (Flashing)

Add. **28**

Seg. **5**

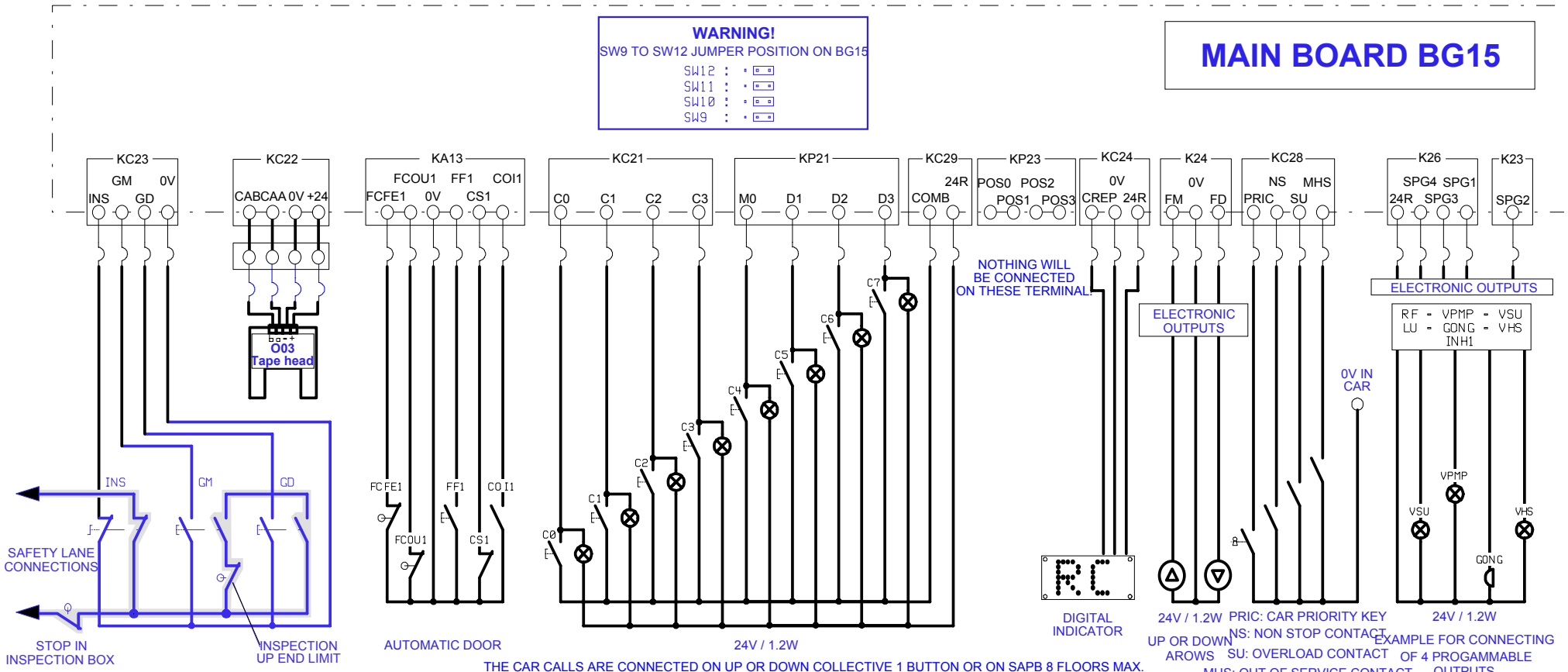


« Engaged » light state preview

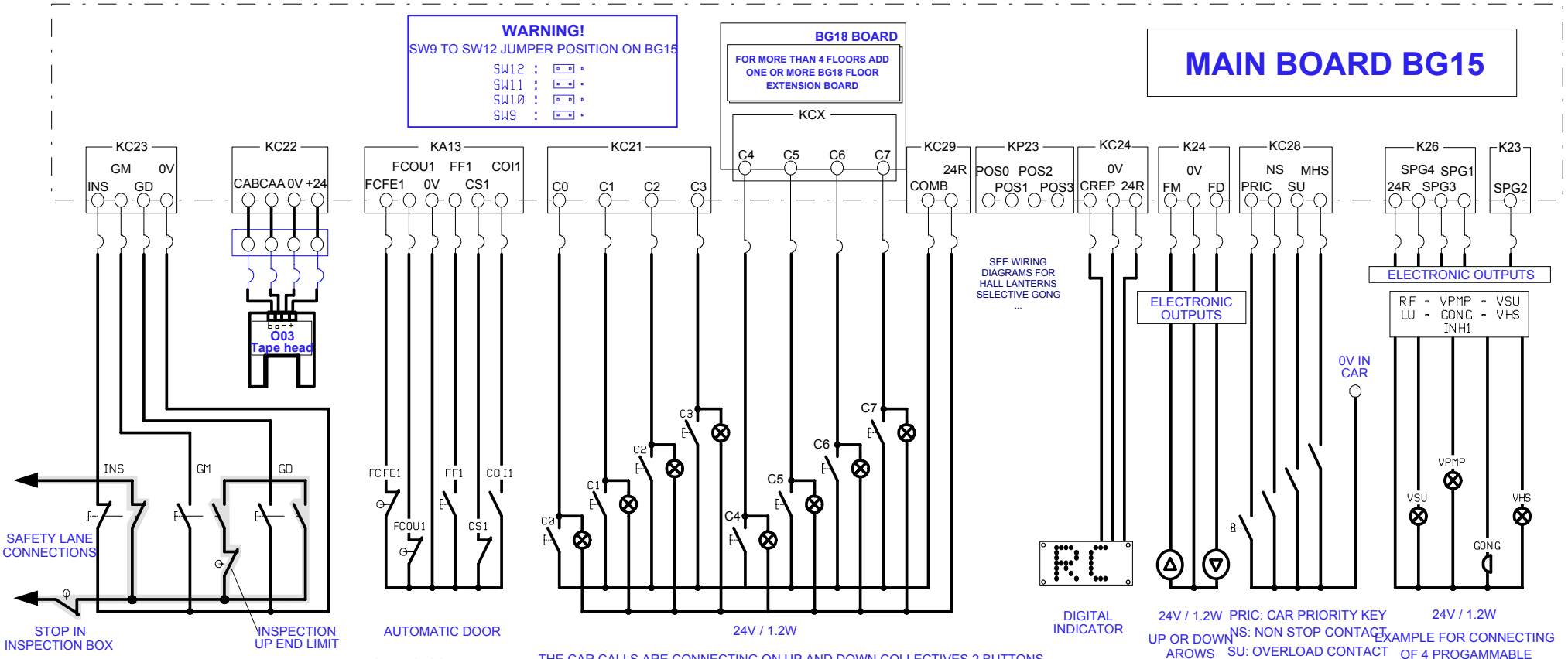
CHAPTER VI

INSTALLATION & CONNECTING IN CAR

CONNECTING IN CAR: 2 TO 8 LEVELS (SAPB OR COLLECTIVE 1 BUTTON)



CONNECTING IN CAR: SAPB MORE THAN 8 LEVELS OR COLLECTIVE 1 OR 2 BUTTONS / LANDING 2 TO 16 LEVELS



CAR CALLS FOR SINGLE AUTOMATIC AND COLLECTIVE OPERATION, 1 BUTTON, 2 TO 8 LEVELS (1/2)

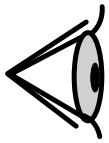
⚠ : **Without positioning 1 wire per level, without Duplex, without level damaged**

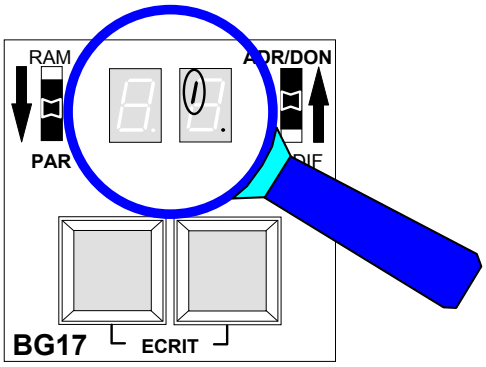
BASE 8N

BASE 8 Level

Add. **5C**

Seg. **5**





For the mask:

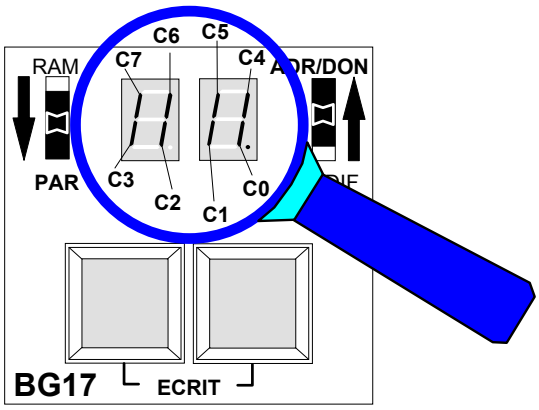
To switch on the segment corresponding to the active buttons.

MSQCAB

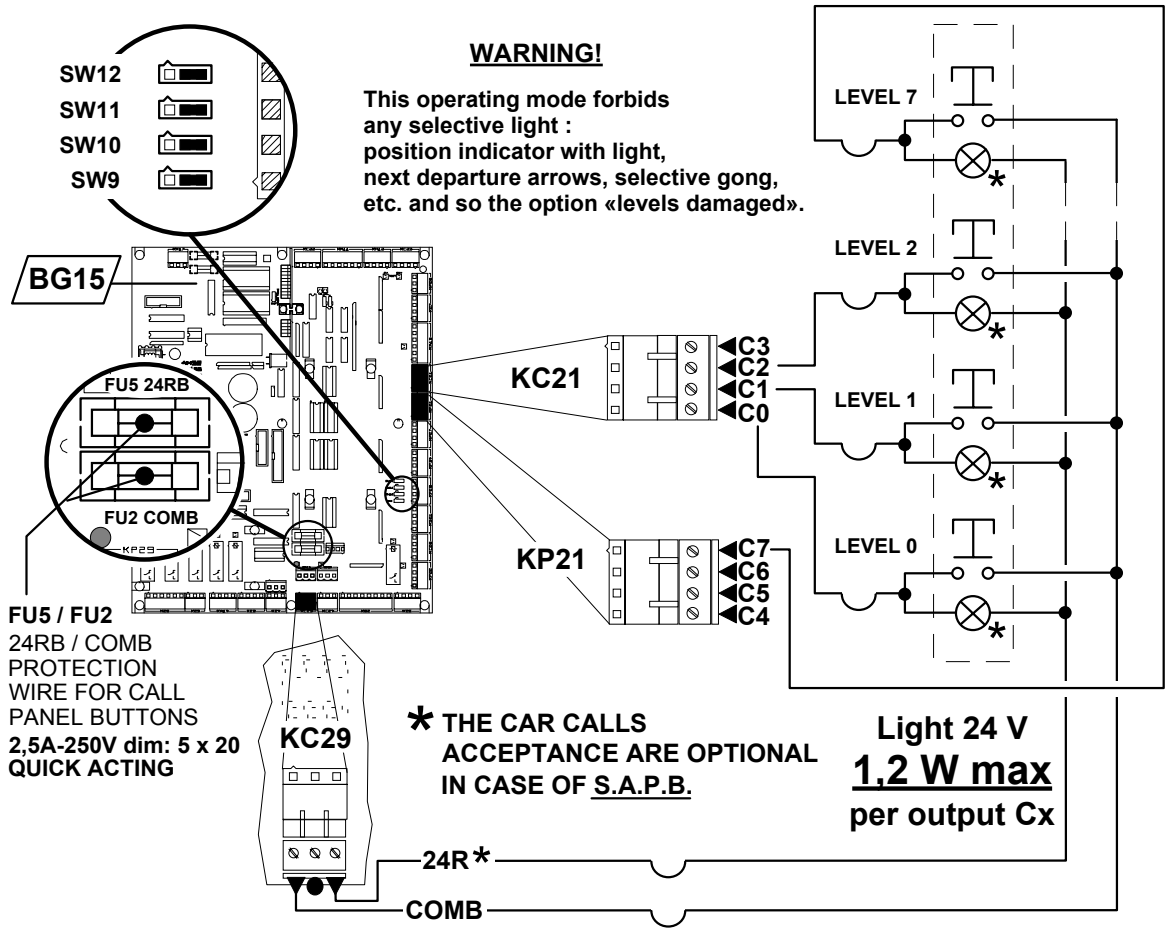
Mask the « Car » calls

Add. **10**

Seg. **0** to **7**



CAR CALLS FOR SINGLE AUTOMATIC AND COLLECTIVE OPERATION, 1 BUTTON, 2 TO 8 LEVELS (2/2)



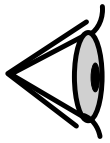
« Car » calls connection

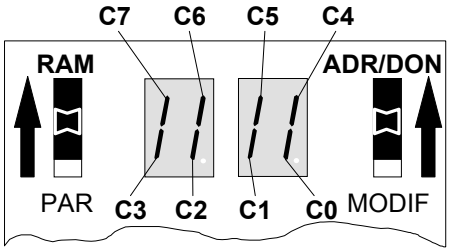
Cx - ENVCAB

« Car » calls

Add. **00**

Seg. **0** to **7**





« Car » calls visualisation

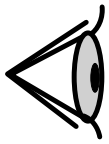
CAR CALLS FOR COLLECTIVE OPERATION
1 OR 2 BUTTONS, 2 TO 16 LEVELS (1/2)

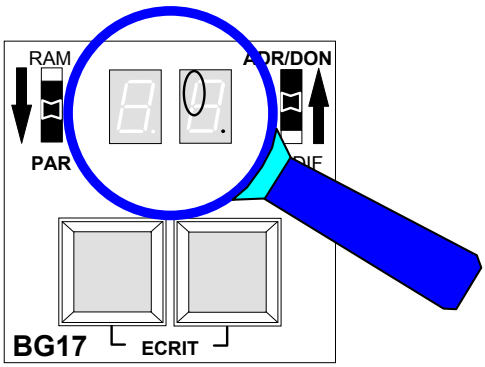
BASE 8N

BASE 8 Level

Add. **5C**

Seg. **5**





For the mask:

To switch on the segment corresponding to the active buttons.

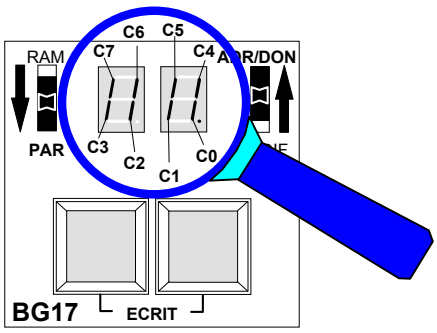
MSQCAB

Mask the

« Car » calls

Add. **10**

Seg. **0** to **7**



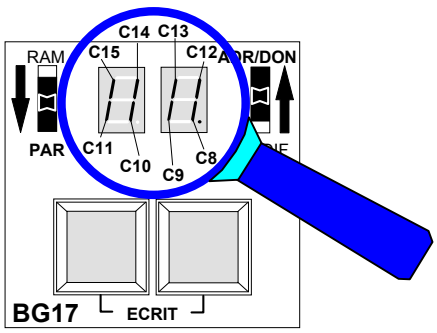
MSQCAB

Mask the

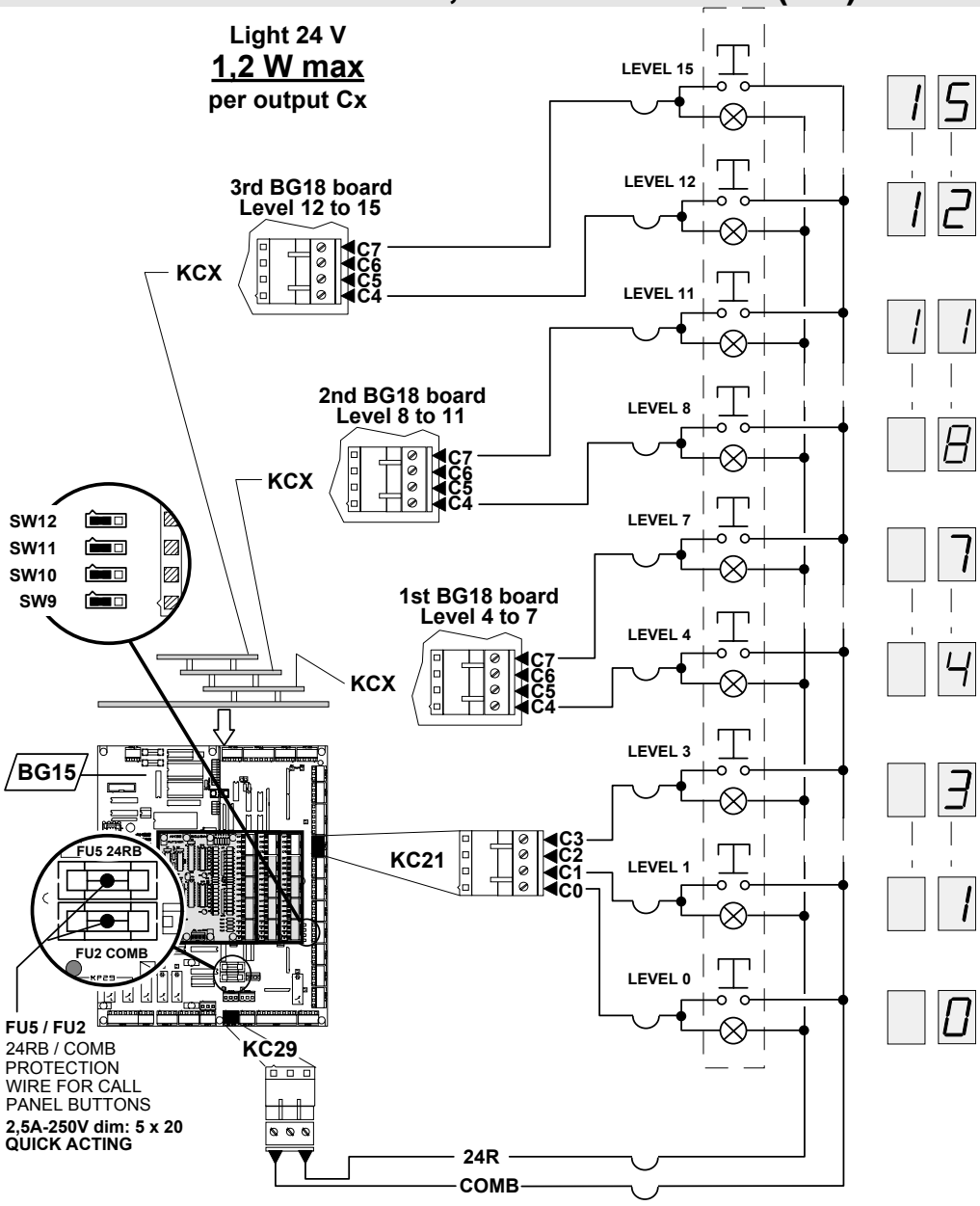
« Car » calls

Add. **11**

Seg. **0** to **7**



CAR CALLS FOR COLLECTIVE OPERATION
1 OR 2 BUTTONS, 2 TO 16 LEVEL (2/2)



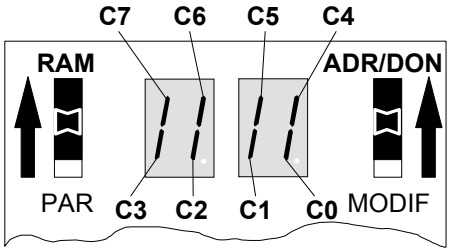
« Car » calls connection

Cx - ENVCAB

« Car » calls C0 to C7

Add. **00**

Seg. **0** to **7**

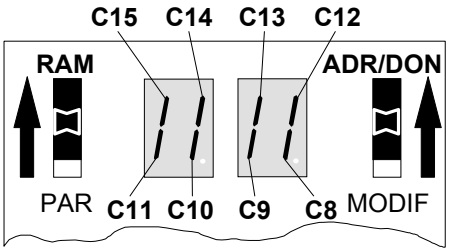


Cx - ENVCAB

« Car » calls C8 to C15

Add. **01**

Seg. **0** to **7**



« Car » calls preview

DOUBLE SELECTIVE SERVICE CAR CALLS (1/2)

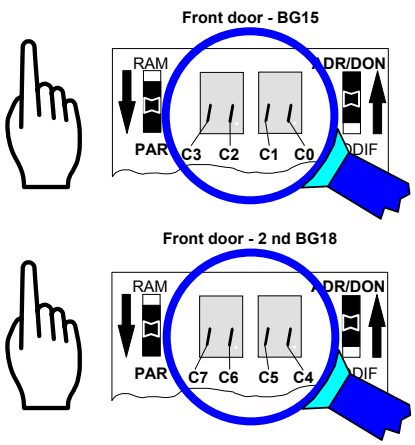
FRONT DOOR N°1 | **REAR DOOR N°2**

For the mask:
To switch on the segment corresponding to the active buttons.

MSQCAB
Mask the « Car » calls
Add. **10**
Seg. **0 to 3**

&

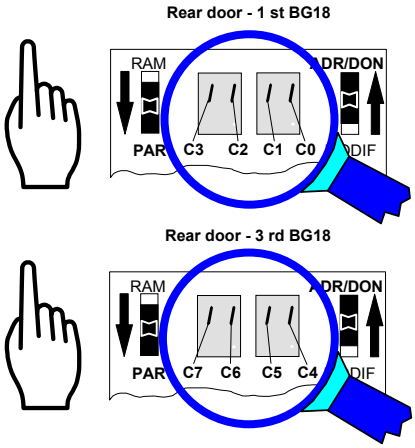
Add. **11**
Seg. **0 to 3**



MSQCAB
Mask the « Car » calls
Add. **10**
Seg. **4 to 7**

&

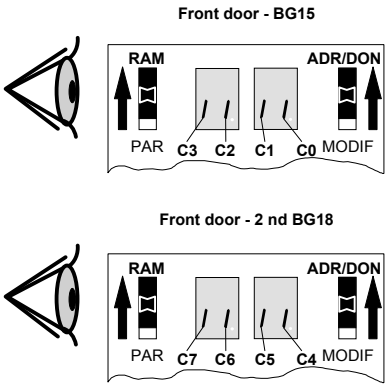
Add. **11**
Seg. **4 to 7**



Cx - ENVCAB
« Car » calls
Add. **00**
Seg. **0 to 3**

&

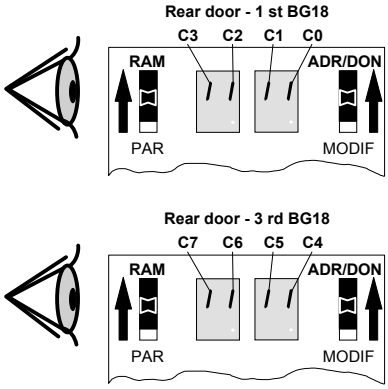
Add. **01**
Seg. **0 to 3**



Cx - ENVCAB
« Car » calls
Add. **00**
Seg. **4 to 7**

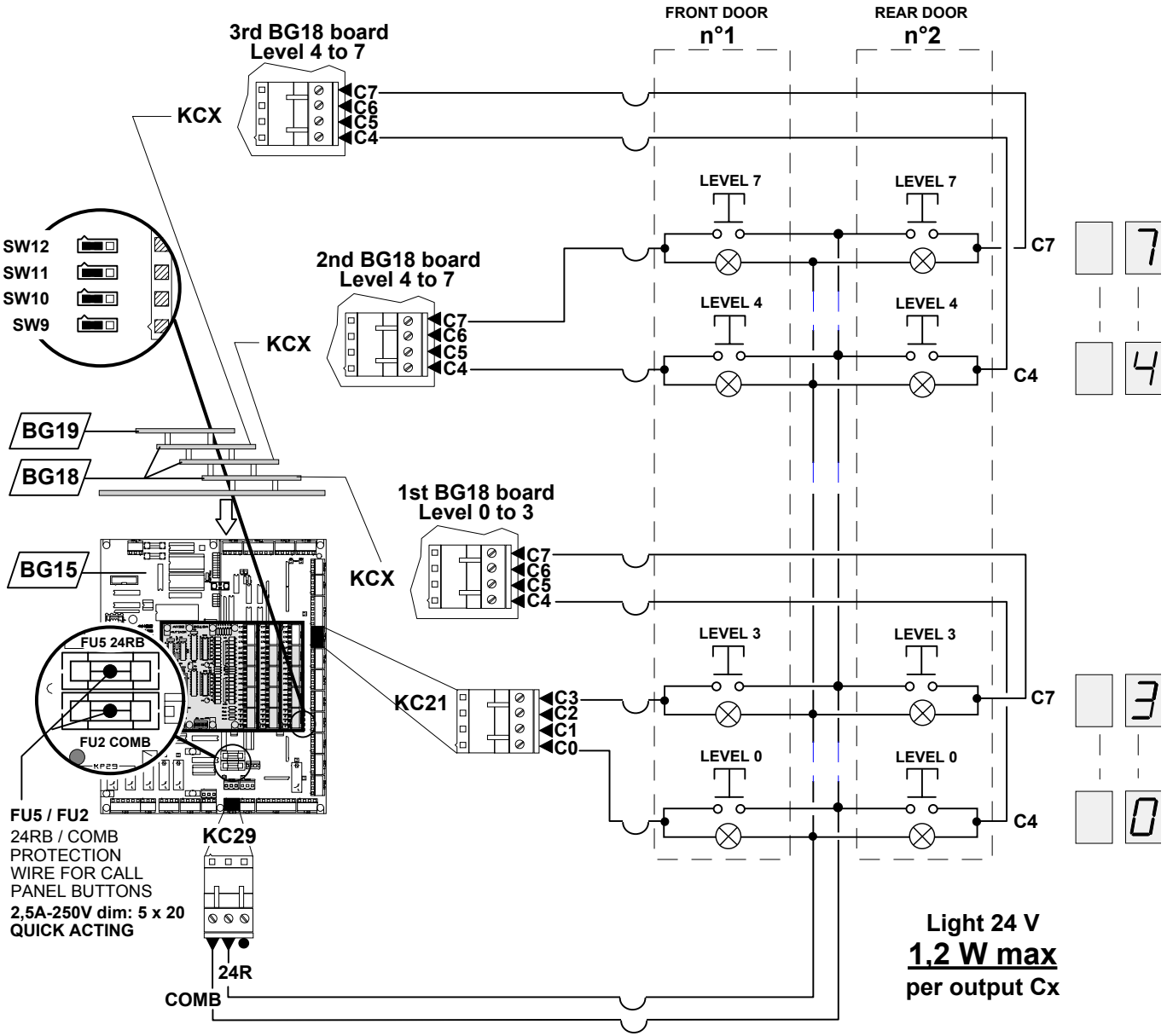
&

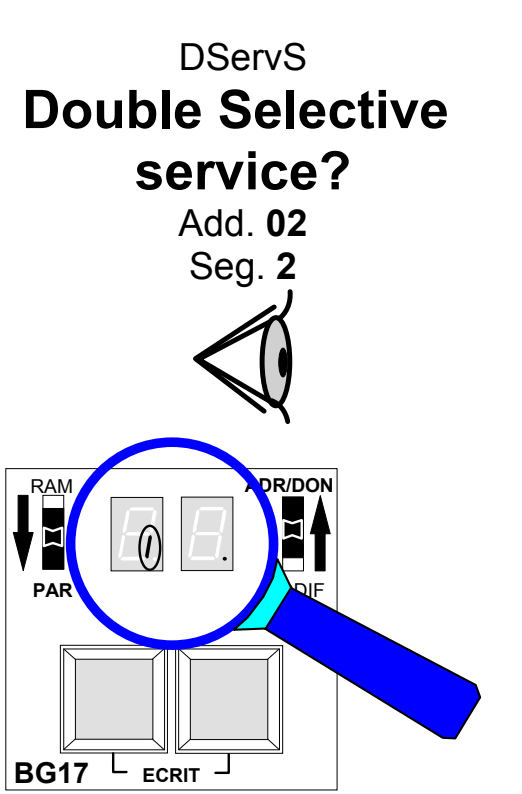
Add. **01**
Seg. **4 to 7**



« Car » calls preview

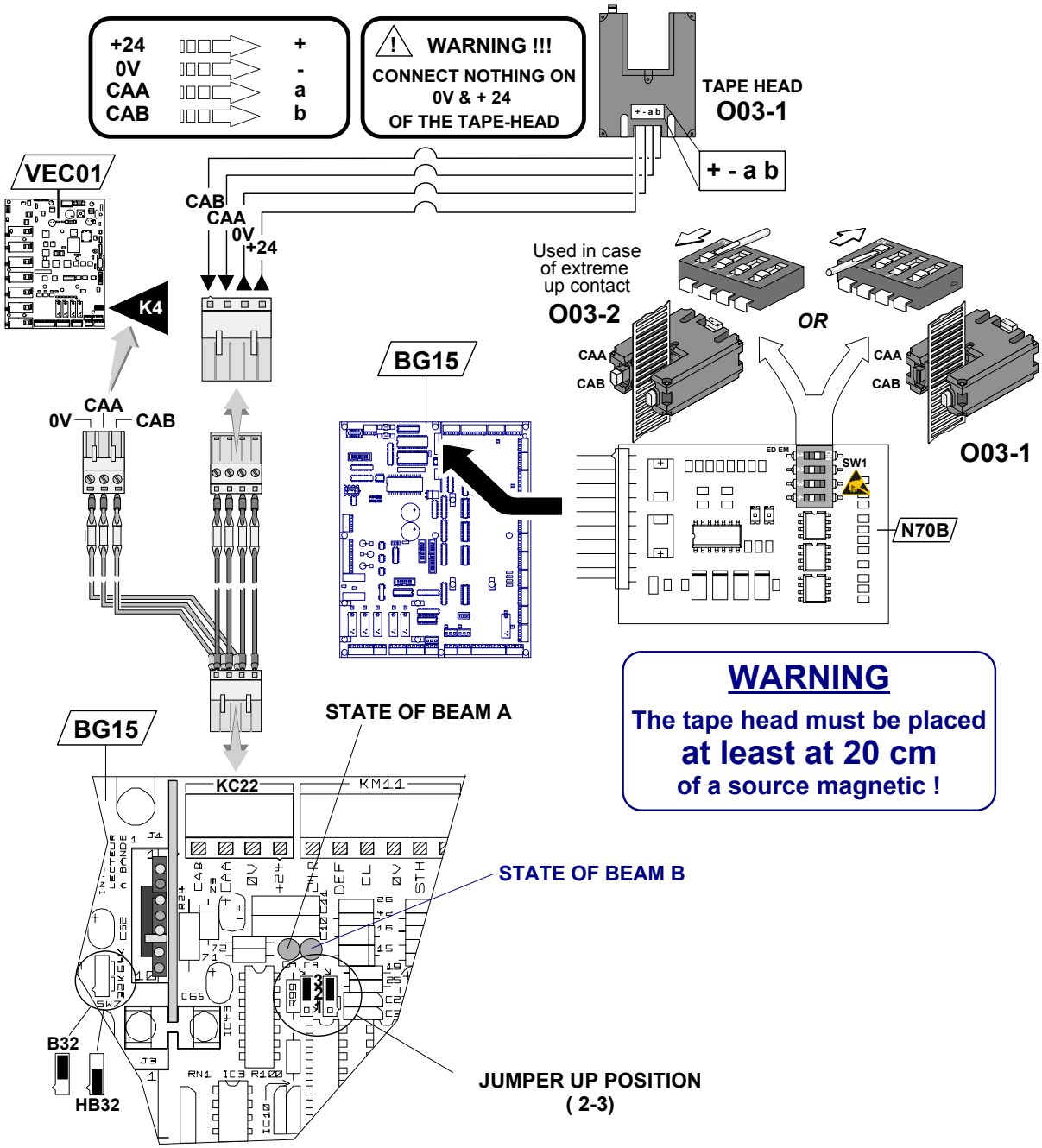
DOUBLE SELECTIVE SERVICE CAR CALLS (2/2)





Double selective service « Car » calls connection

CONNECTING OF TAPE HEAD O03-1 & O03-2 FOR COUNTING WITH SLOTTED TAPE (1/2)



Connecting of tape head O03-1 or O03-2

MINIBLOC

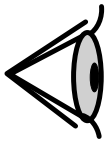
CA & CB

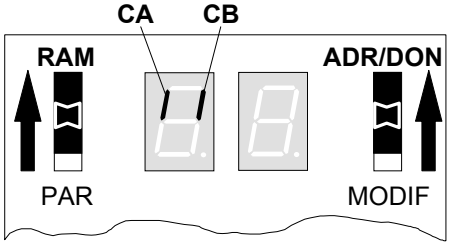
Tape head beam A

Tape head beam B

Add. **FF**

Seg. **7** & **6**





Beam CA & CB of tape head O03-1 or O03-2 preview

CONNECTING OF TAPE HEAD O03-1 & O03-2
For COUNTING WITH SLOTTED TAPE 2/2

CAA, CAB, EXD (& EXM (003-2))

Tape head beam A

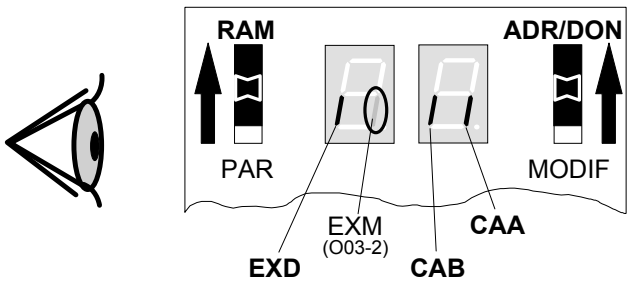
Tape head beam B

Extreme Down contact

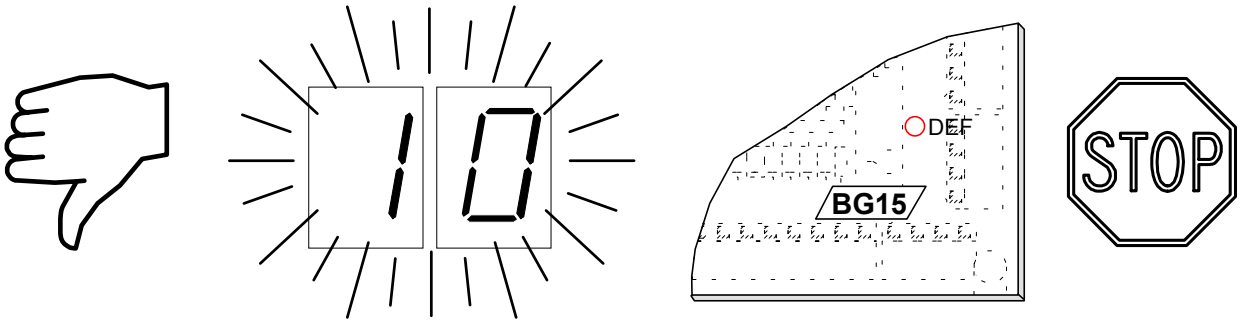
(& Extreme Up contact)

Add. **11**

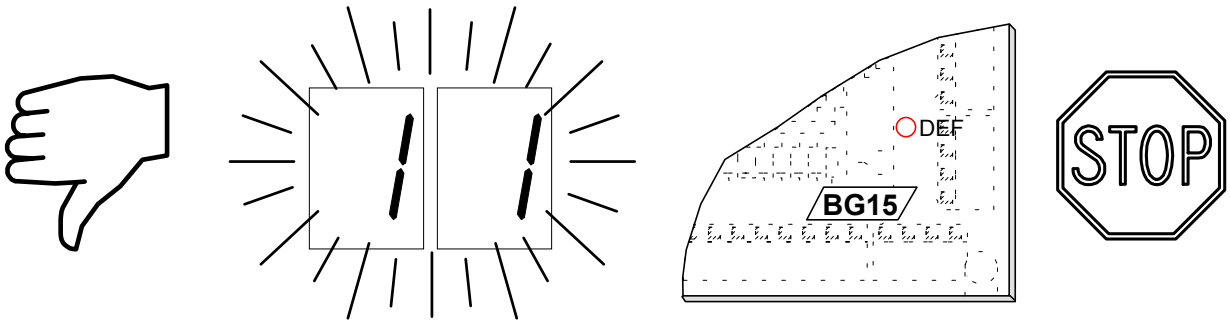
Seg. **0, 1, 3** (& 2 (EXM))



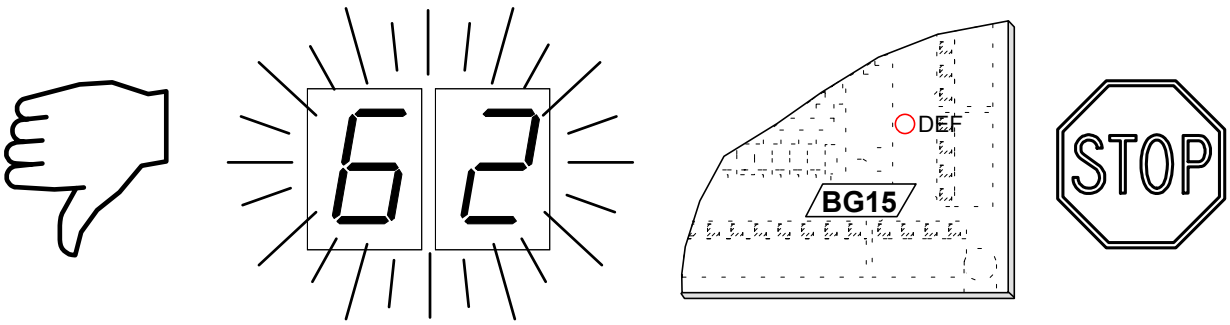
Tape head beam state (O03-1 or O03-2) and the magnetic switch preview



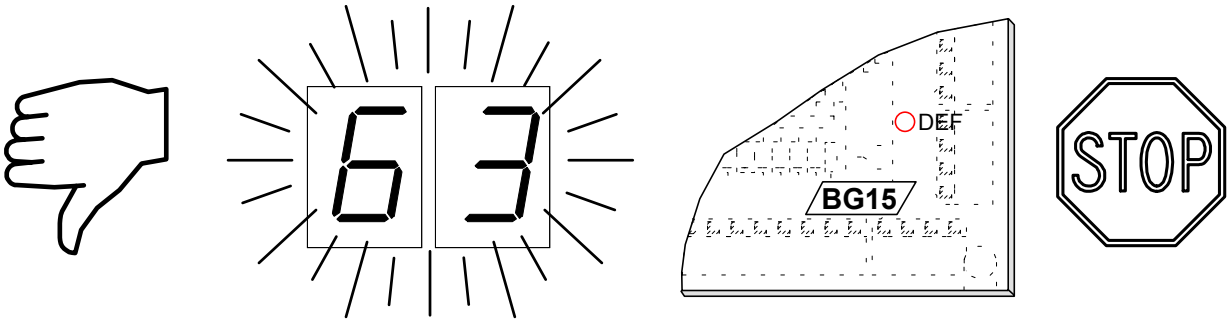
Inversion of the car movement



Consequence of an incorrect reading by CA & CB signal

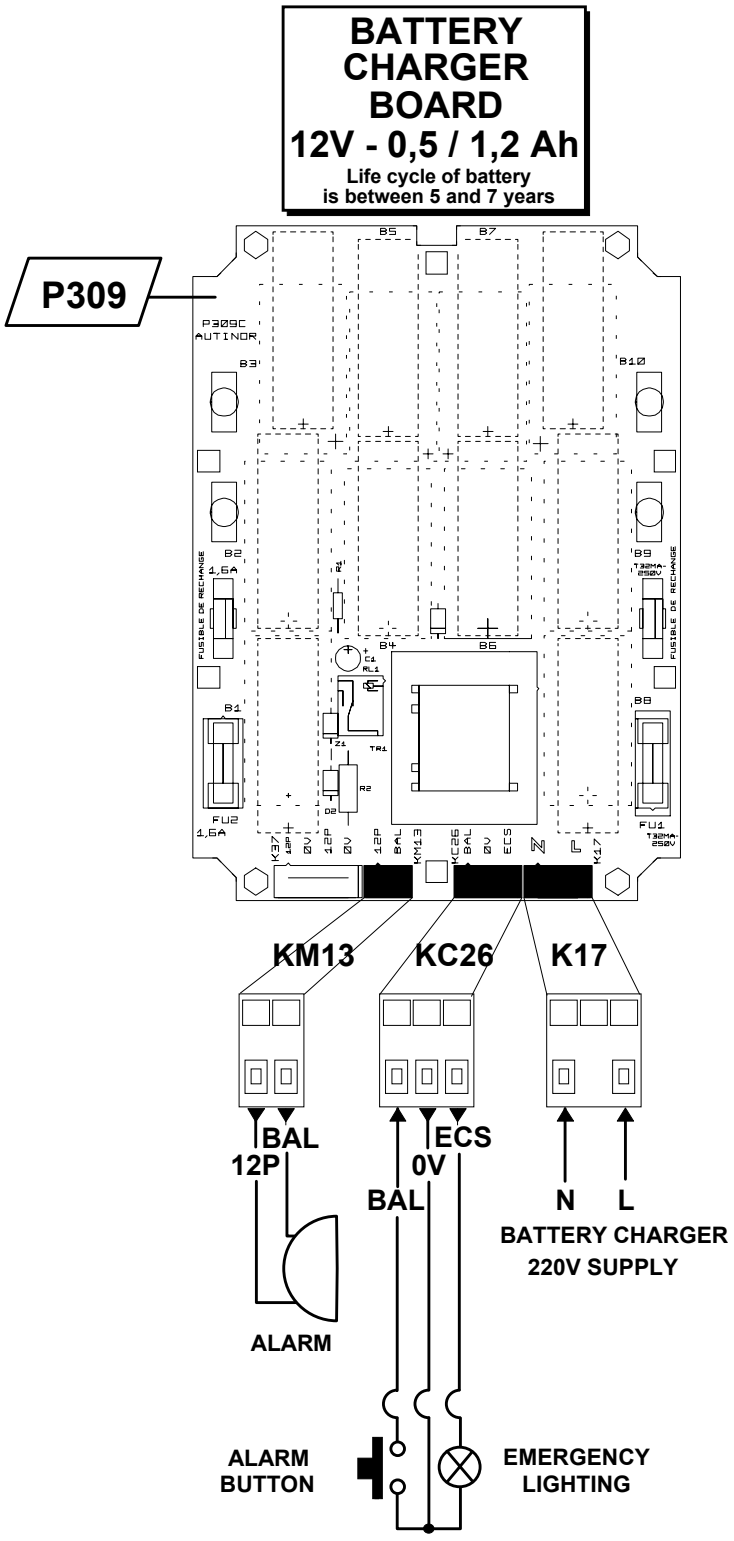


Consequence of the tape head O03 fault



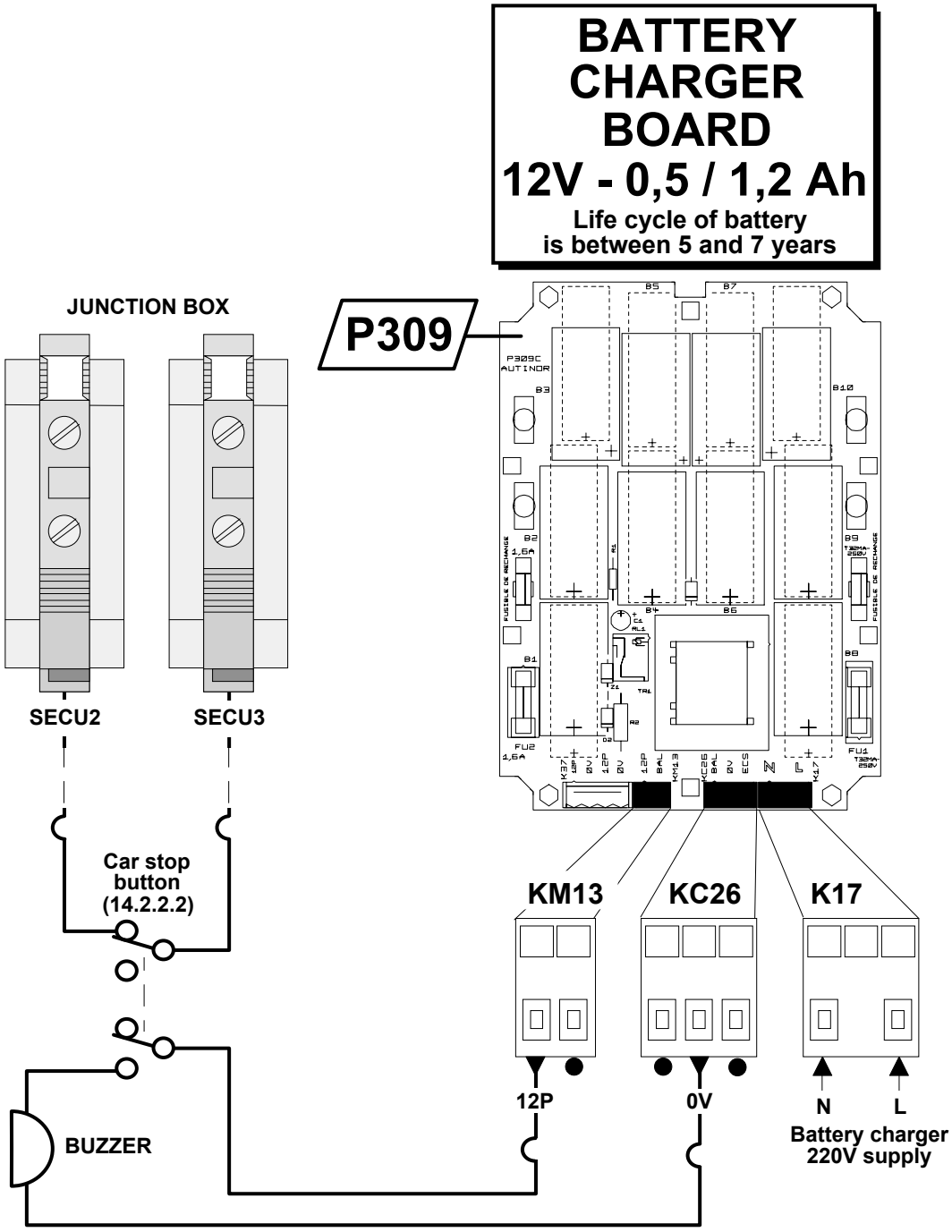
Tape head O03 not powered

CAR ALARM BUTTON



Car alarm button connection

CAR STOP BUTTON



Car stop button connection

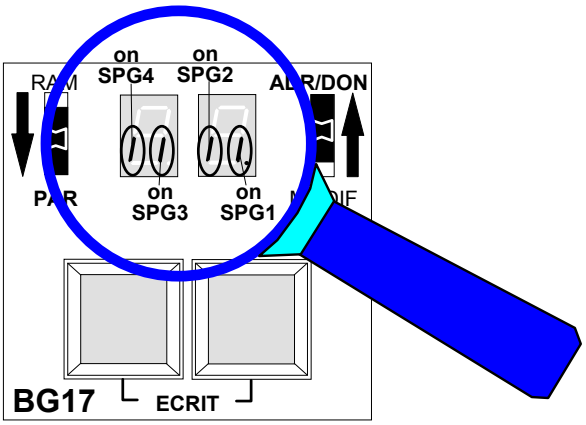
CAR GONG 1/2

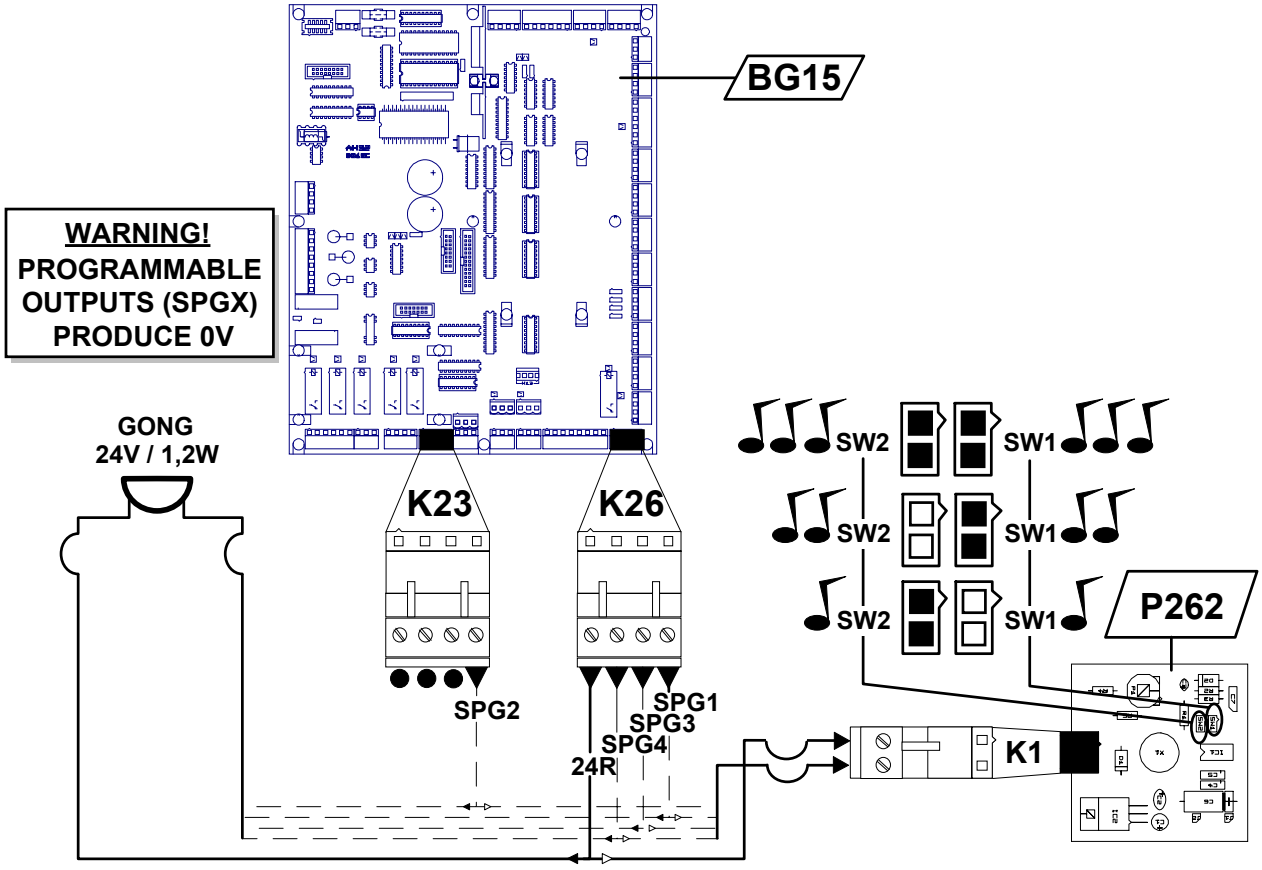
GONG

GONG on Programmable outputs xx

Add. **79**

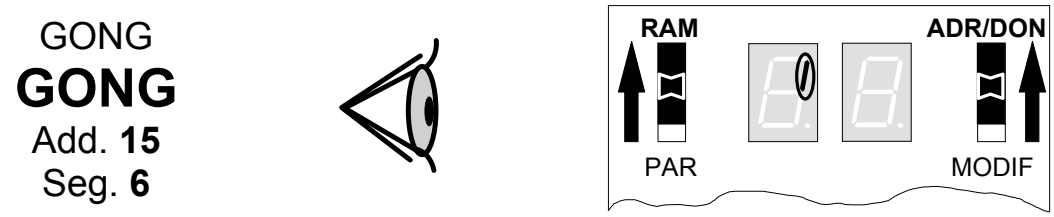
Seg. **0** to **3**



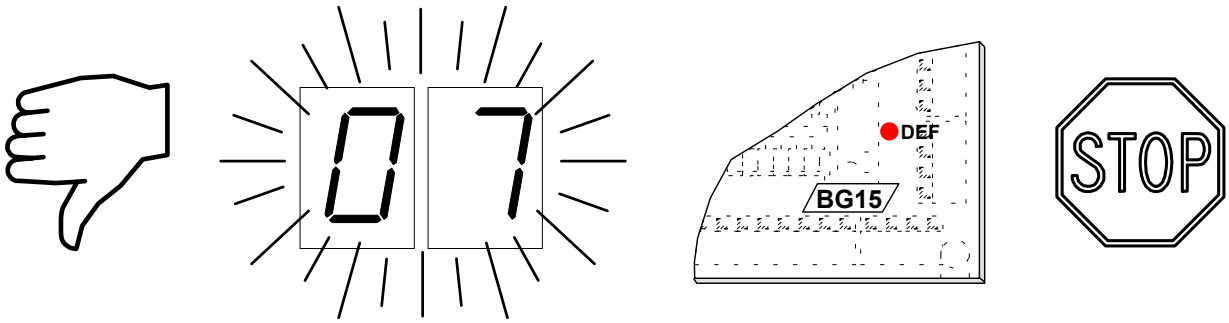


« Non selective gong» (in car)

CAR GONG (2/2)



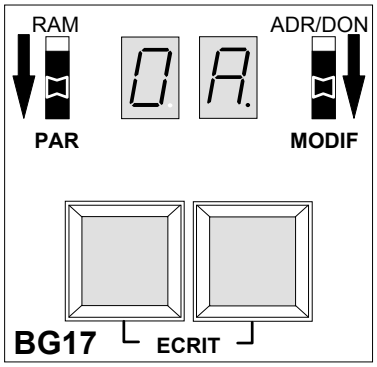
Gong preview

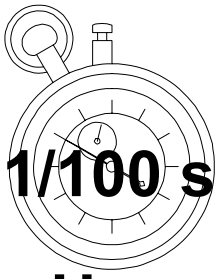


Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

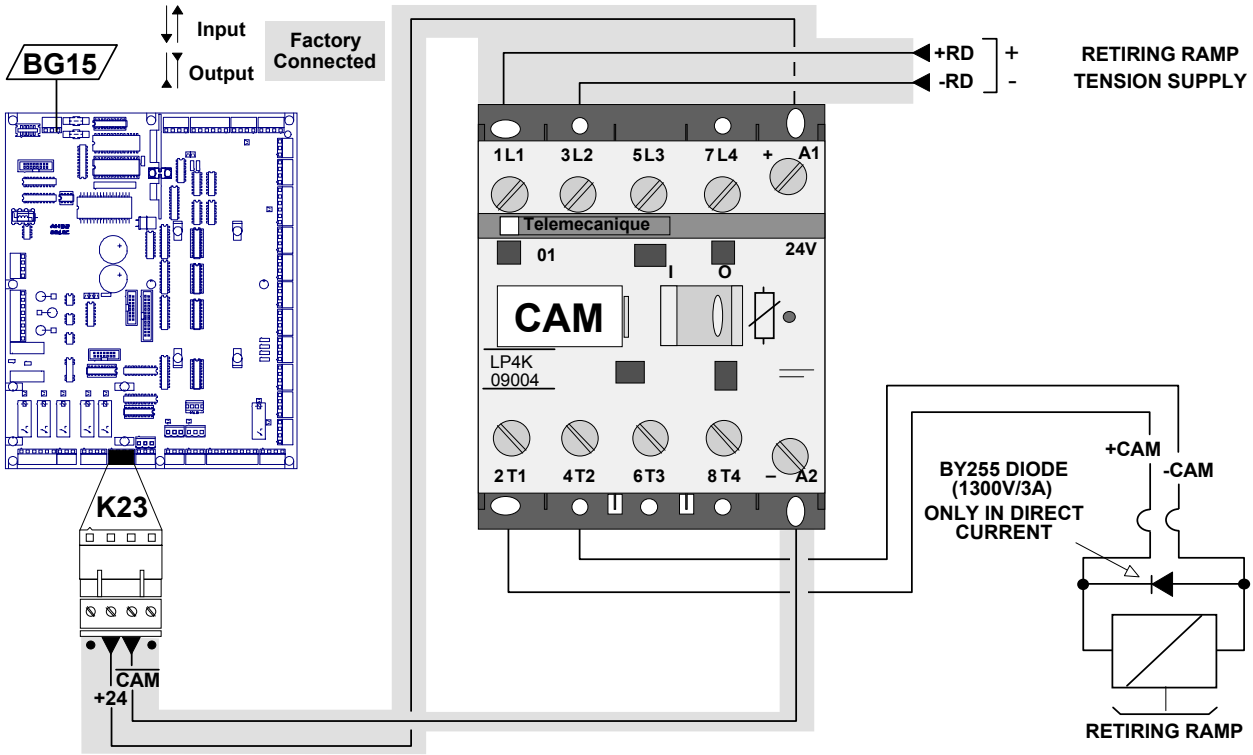
UNLOCKING RETIRING RAMP WITH DIRECT CURRENT

TFR8
Filtering of « 8 »
Add. **45**



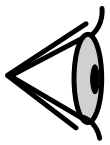


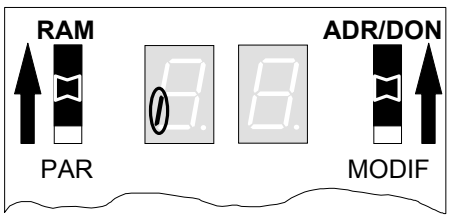
Hex



« Retiring ramp » connection

CAM
Retiring ramp
Add. **13**
Seg. **3**





Retiring ramp output state preview

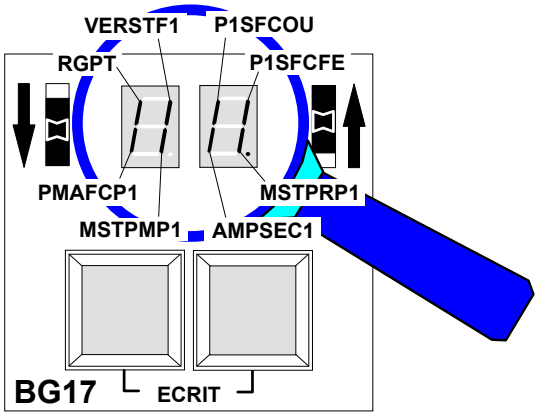
FRONT DOOR THREE PHASE MOTOR

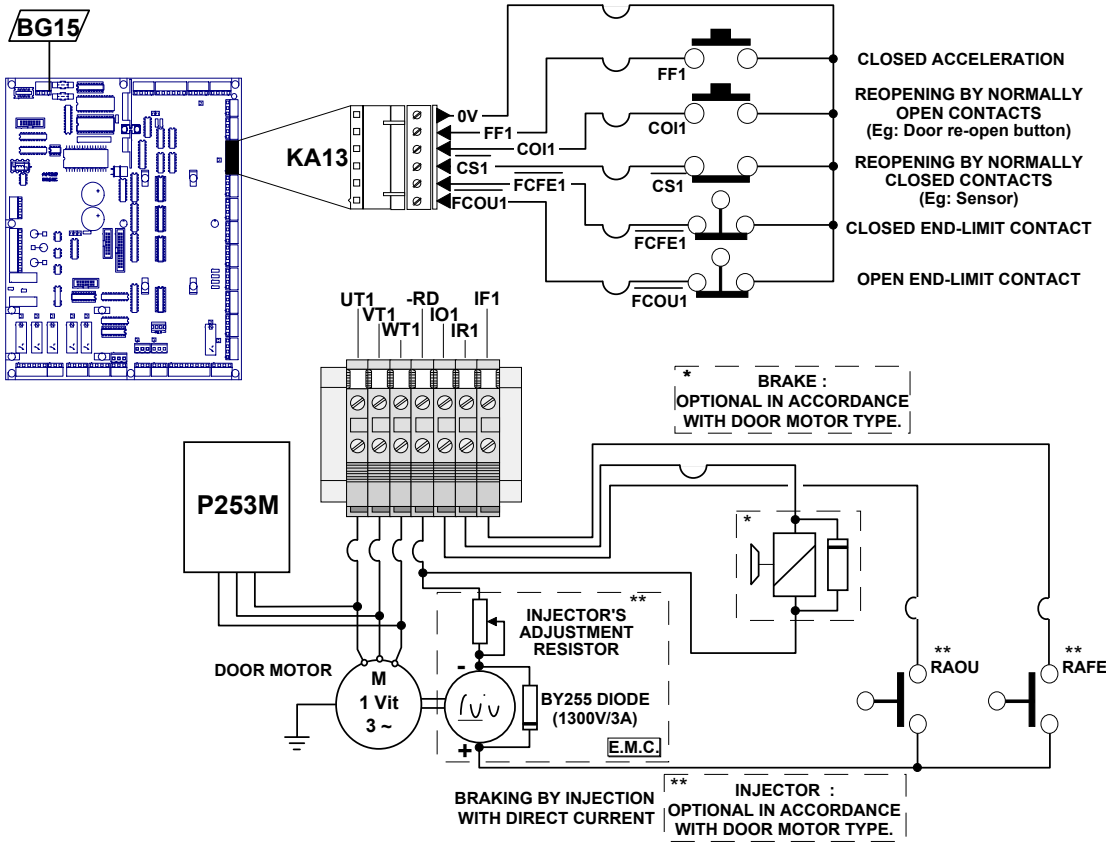
CARPO1

Front door mechanical characteristics

Add. **40**

Seg. **0** to **7**





Front door three phase motor connection

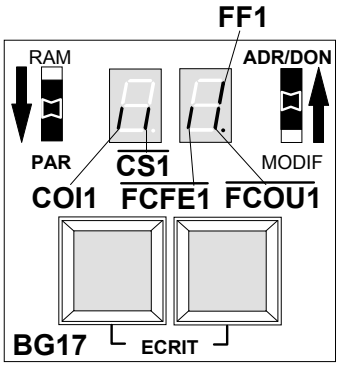
PAUTO

FCOU1, FCFE1, CS1, COI1, FF1

Automatic front door

Add. **0F**

Seg. **0** to **4**



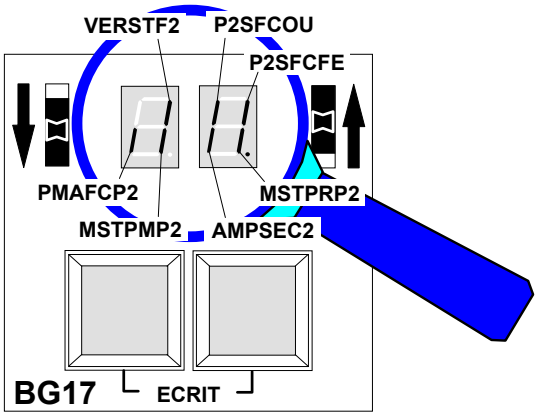
REAR DOOR THREE PHASE MOTOR

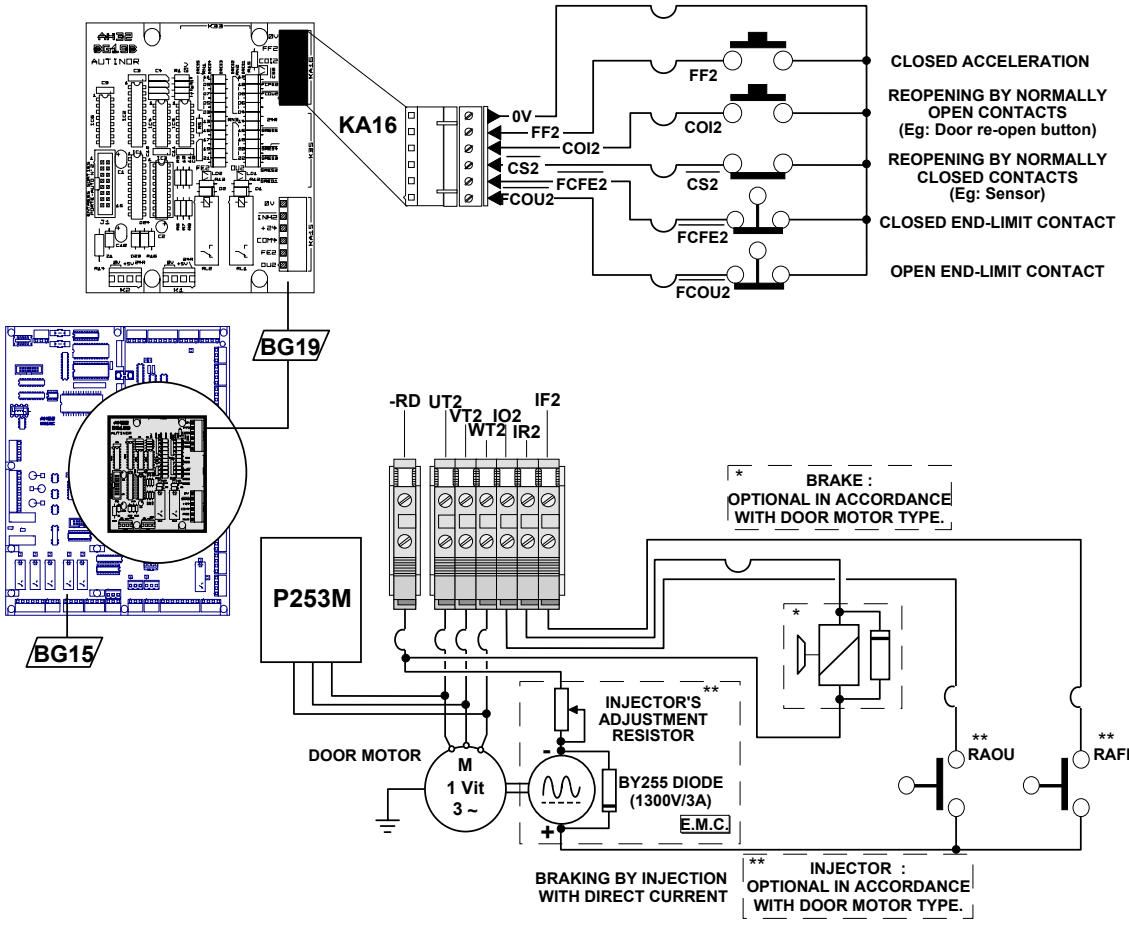
CARPO2

Rear door mechanical characteristics

Add. **60**

Seg. **0** to **6**





Rear door three phase motor connection

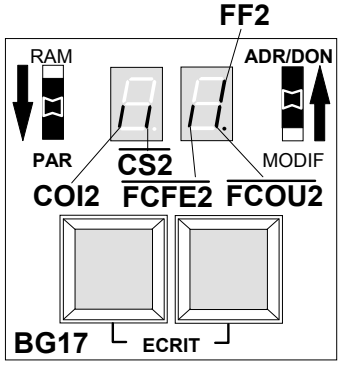
PAUTO

FCOU2, FCFE2, CS2, COI2, FF2

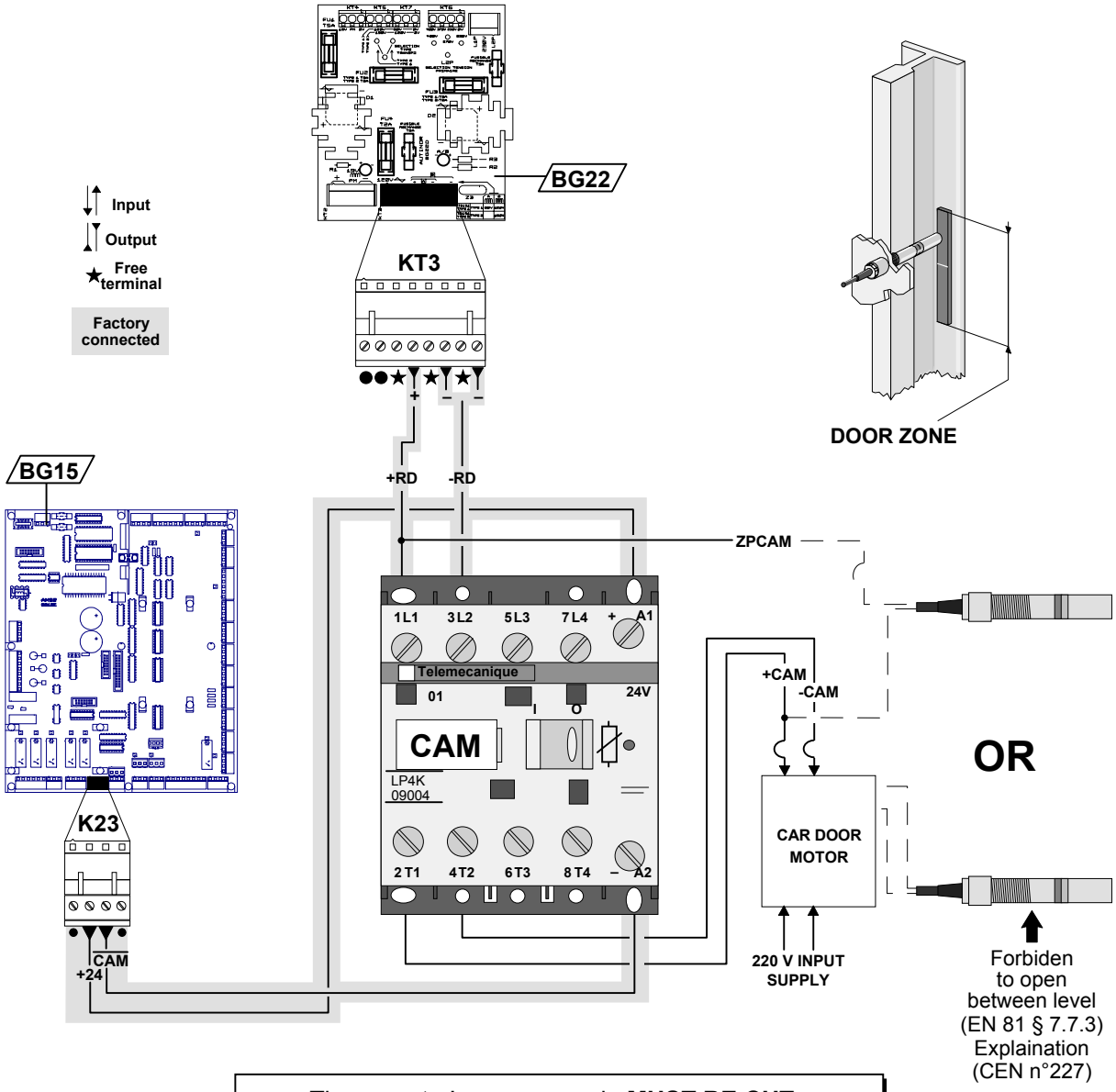
Automatic rear door

Add. **10**

Seg. **0** to **4**



AUTOMATIC DOOR MOTOR PILOTED BY RETIRING RAMP



The operator's power supply **MUST BE CUT** by the principal switch in the machine room.

IT MUST NOT therefore be supplied by the lighting circuit and / or by the car's electrical plug.

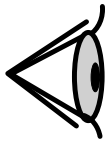
Automatic door motor piloted by retiring ramp

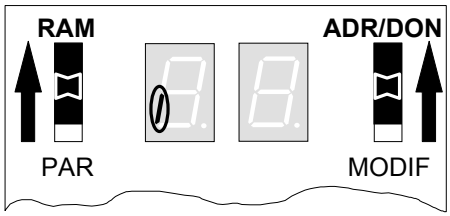
CAM

Retiring ramp

Add. **13**

Seg. **3**





Retiring ramp output preview

ELECTRONIC DOOR CONTROL UNIT OP06 OR OP11

Presentation of VVVF door card OP06 or OP11.

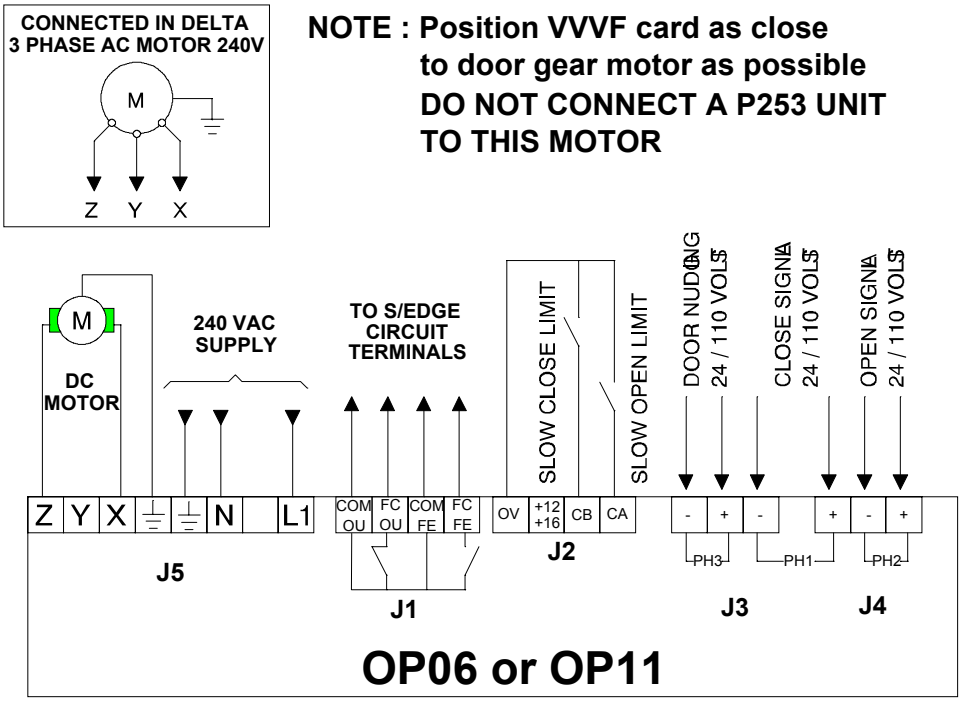
The Electronic Door Control Unit **OP06** or **OP11** has been designed to control 3 Phase AC motor or D.C. motor - **0,3 kW** (OP06) and **0,6 kW** (OP11).

3 Phase AC motor: Programme **OP11 / OP06B - V07 14 MHz - 25/10/95**

DC motor: Programme **OP11 / OP06B - V07 CC - 10/02/95**

The frequency drive regulates the doors' acceleration and deceleration, which can be individually adjusted to suit the requirements of the application in both opening and closing directions.

Connection Diagram of the Electronic Card.



Open signal from the controller, should be connected to Terminal connector **J4** on **PH2+** and **PH2-**.

Close signal from the controller, should be connected to Terminal connector **J4** on **PH1+** and **J3** on **PH1-**.

Open Slow Down Limit should be connected to Terminal connector **J2** on **0V** and **CA**.

Close Slow Down Limit should be connected to Terminal connector **J2** on **0V** and **CB**.

Door Nudging will be given from the controller and should be connected to Terminal connector **J3** on **PH3+** and **PH3-**. It is also required to give a door close signal.

Door re-opening is created due to an over-current which will energise the on-board relay. The relay contact should be connected to the safety edge circuit to open the doors. The terminals to connect to are marked **COM FC** and **FCFE** (normally open) of the **J1** connector.

NOTE: The V.V.V.F. / Motor link should be as short as possible.

IMPERATIVE

Separate the conductors carrying large current and those carrying electric information at low current.

For more information refer you at the documentation *[ref AUTINOR: 7276)*

ELECTRONIC DOOR CONTROL UNIT OP15 1/2

Presentation of the VVVF door card OP15.

The Electronic Door Control Unit OP15 has been designed to control 3 Phase AC motor up to **0,3 kW**.

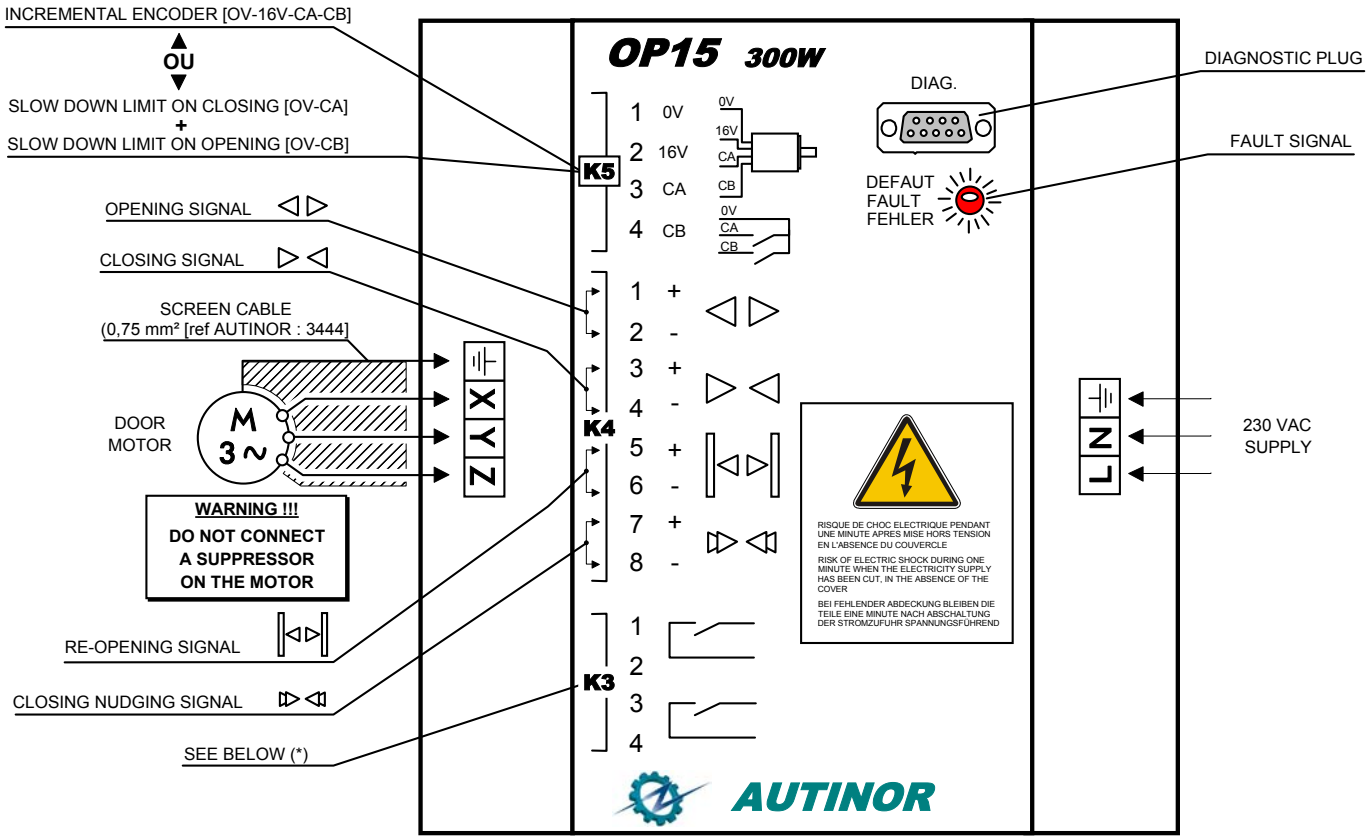
3 Phase Motor:

- Programme Slow down contacts: ..... **OP15 R xx – xx/xx/xx**
- Programme Incremental Encoder: ..... **OP15 I xx – xx/xx/xx**

The VVVF door drive only independently runs the slow down contact, due to the contact which are connected directly or to the incremental encoder.

The opening and closing command are given from the controller which receive directly the end limit contacts or by the intermediately of the encoder which knows the exact position of the leaves.

Connection diagram of Electronic Box.



The Open signal should be connected to Terminal connector **K4** on **–** [2] and **+** [1]. (24V ~ or =)

The Close signal should be connected to Terminal connector **K4** on **–** [4] and **+** [3]. (24V ~ or =)

The re-opening signal should be connected to Terminal connector **K4** on **–** [6] and **+** [5]. (24V ~ or =)

The Fire Service signal to do the Set-up speed on closing should be connected to Terminal **K4** on **–** [8] and **+** [7]. (24V ~ or =).

VVVF DOOR DRIVE OP15 2/2

(*) For the Slow limit contacts, 2 choices:

A Slow down limit on opening which is connected to **K5** on **0V** [1] and **CB** [4].

A Slow down limit on closing which is connected to **K5** on **0V** [1] and **CA** [3].

And a relay which give the re-opening, to **K3** between [1] and [2].

The box give equally 1 contact (NO) available on the terminal **K3**.

Programme:

OP15 **R** xx

OR

An Incremental Encoder mounted on the door motor which is connected to **K5** on **0V** [1], **16V** [2], **CA** [3] and **CB** [4].

The OP15 deliver to the controller a simulation of the:

- **OPening End Limit contact** (**ELOP** [FCOU]) between [1] and [2] to the **K3** terminal,
- **And CLosing End Limit contact** (**ELCL** [FCFE)) between [3] and [4] to the **K3** terminal.

Programme:

OP15 **I** xx

NOTE: The VVVF / Motor link should be made with a SCREEN CABLE and as short as possible.

(The screen cable is not delivered but available as a spare part [ref AUTINOR: 3444])

IMPERATIVE

Separate the conductors carrying large current and those carrying electric information at low current.

For more information refer you at the documentation *[ref AUTINOR: ????)*

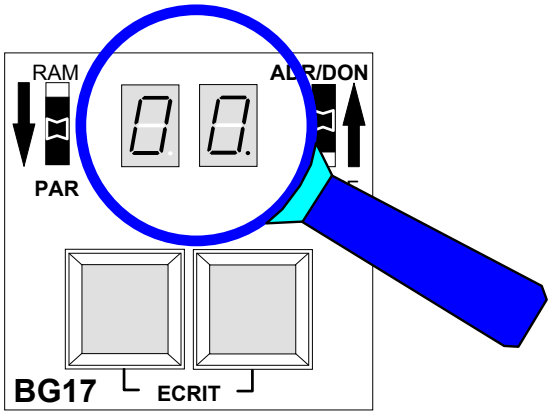
ID 30 MODEL, CAR POSITION INDICATOR

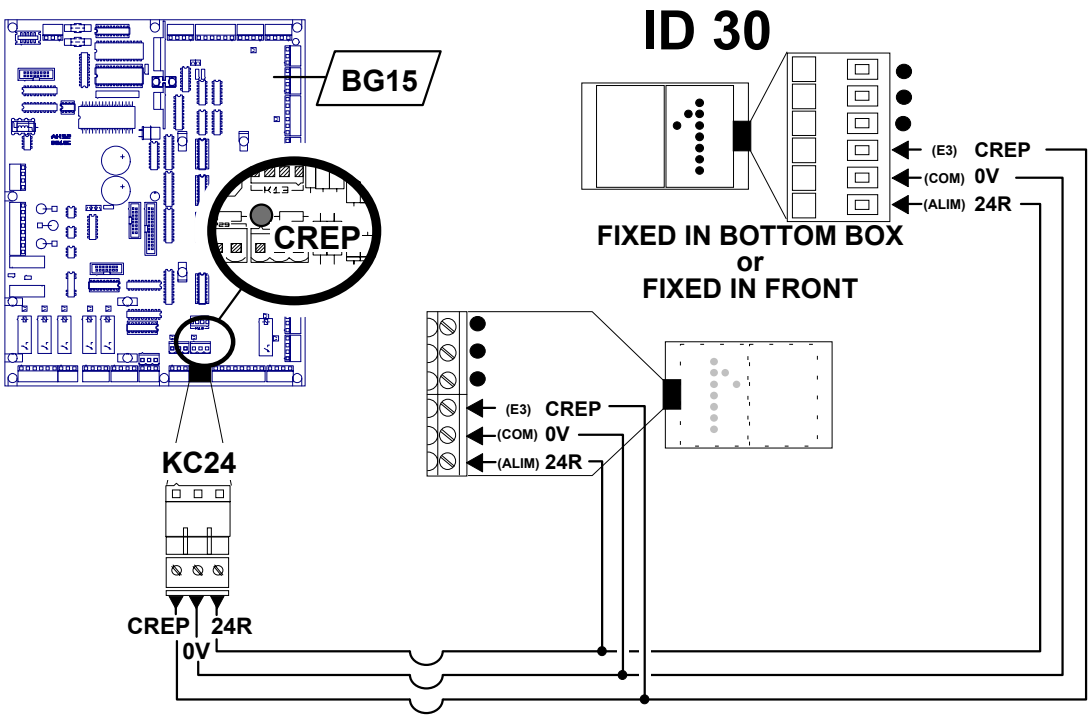
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



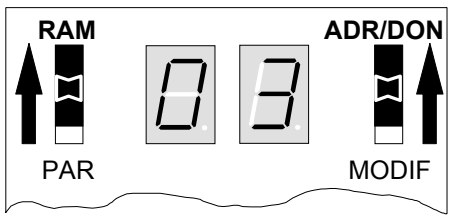


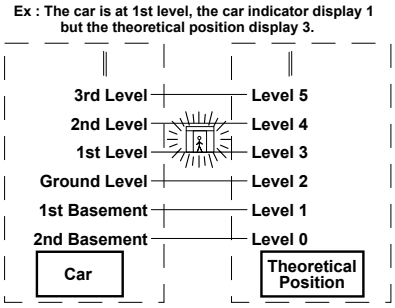
ID 30 model, position indicator connection

POSLOG

Theoretical POSition of the lift

Add. **24**





« Theoretical position » preview

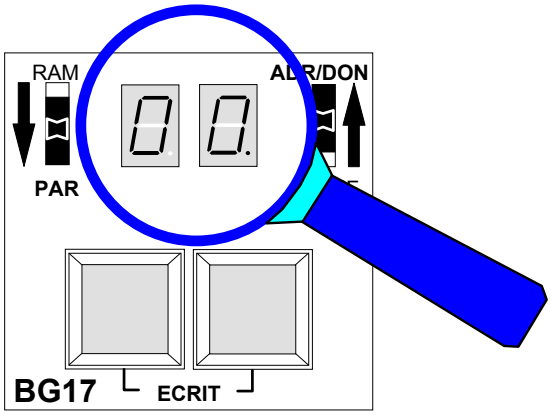
ID 50-1 MODEL, CAR POSITION INDICATOR

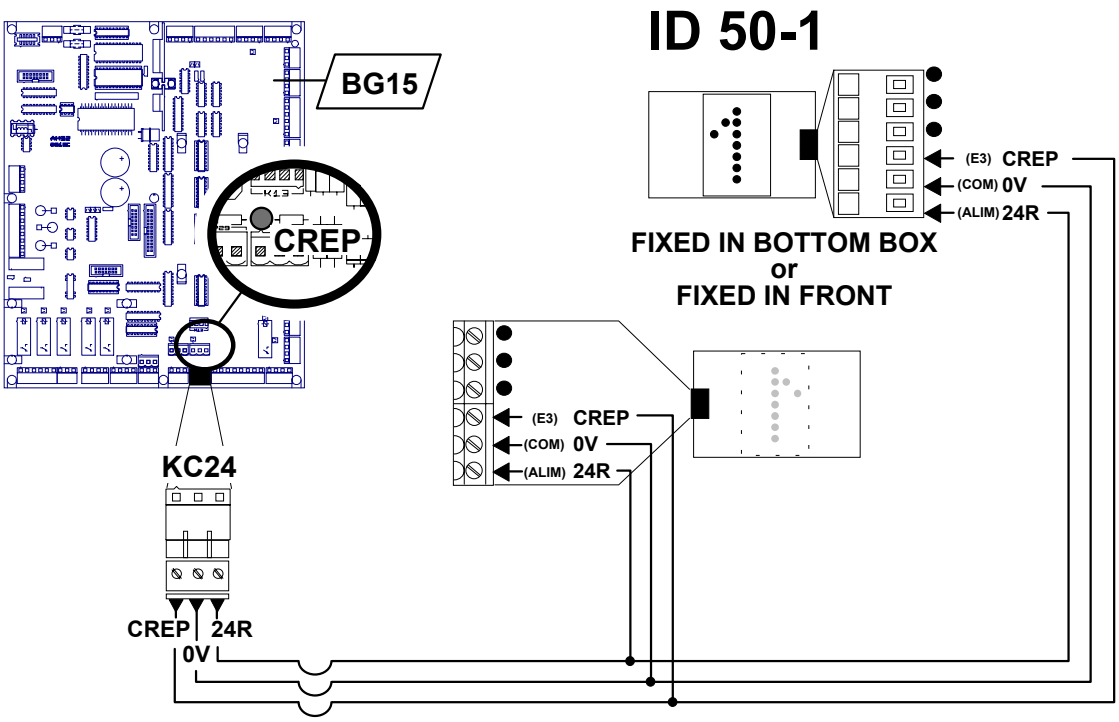
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



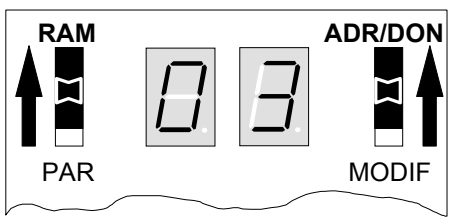


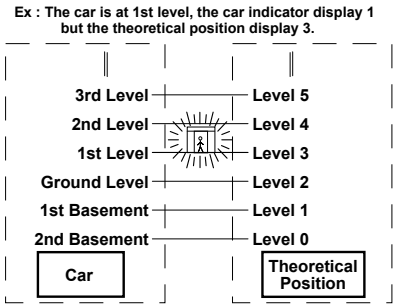
ID 50-1 model, position indicator connection

POSLOG

Theoretical POSition of the lift

Add. **24**





« Theoretical position » preview

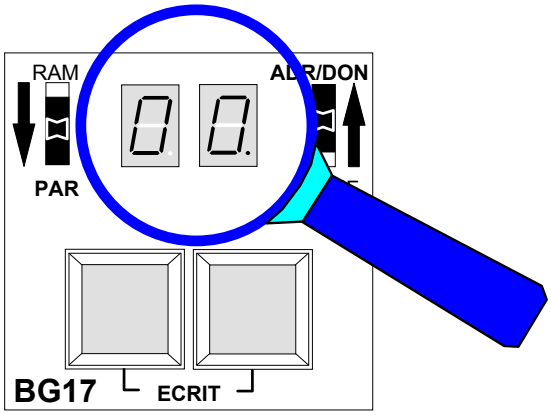
ID 50 MODEL, CAR POSITION INDICATOR

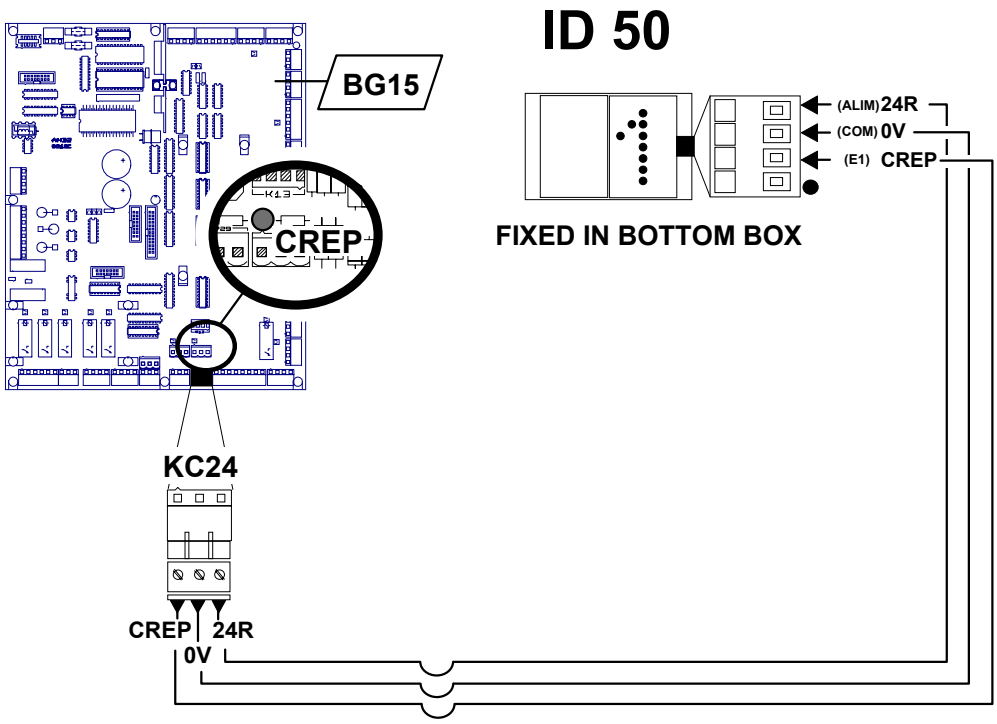
REPTxx

REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



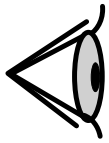


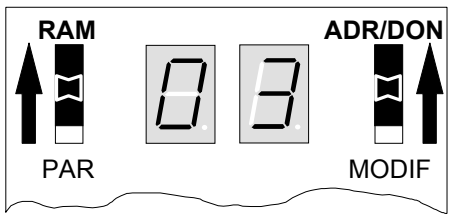
ID 50 model, position indicator connection

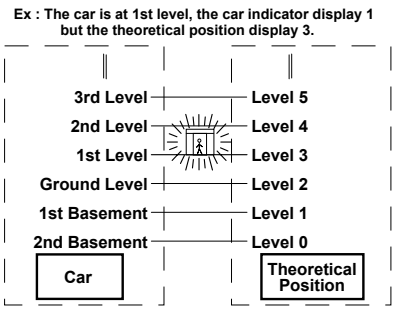
POSLOG

Theoretical POSition of the lift

Add. **24**







« Theoretical position » preview

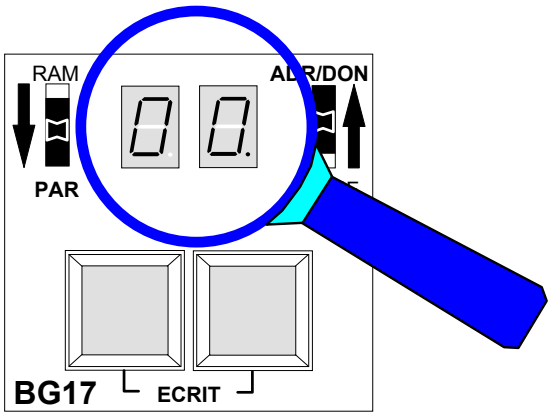
IDFL 30 / 50 MODEL, CAR POSITION INDICATOR WITH ARROWS

REPTxx

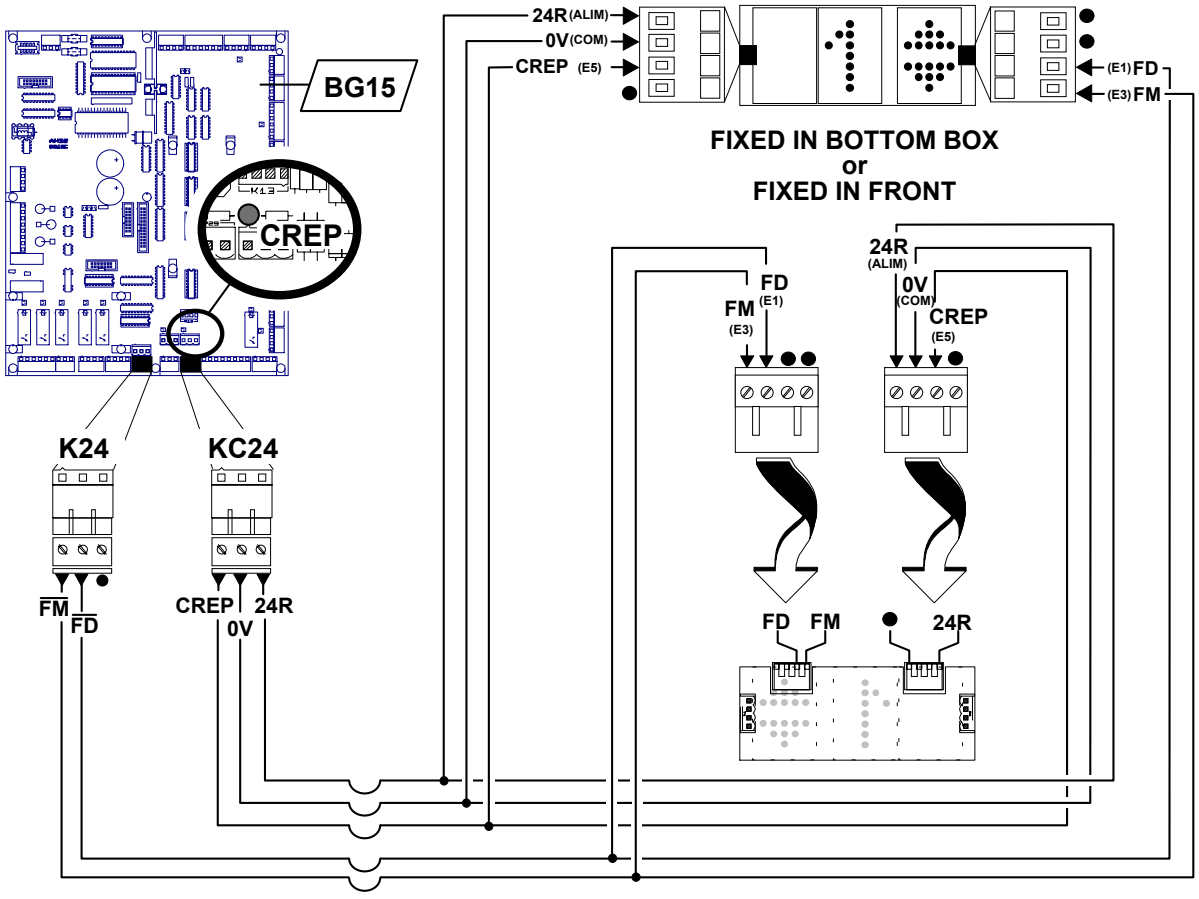
REPeaTer at level xx

Add. **28 to 37**

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



IDFL 30 / 50

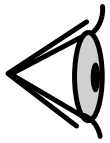


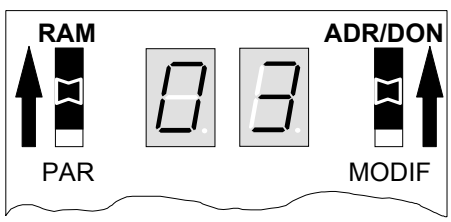
IDFL 30 / 50 model, position indicator connection

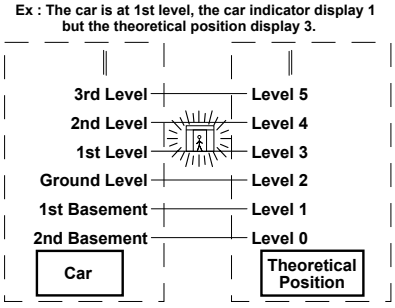
POSLOG

Theoretical POSition of the lift

Add. **24**







« Theoretical position » preview

STANDARD PROGRAMMING

Level	Address
15	37
14	36
13	35
12	34
11	33
10	32
9	31
8	30
7	2F
6	2E
5	2d
4	2C
3	2b
2	**2A**
1	29
0	28

Displayed on digital indicator	Code to be programmed into the controller
0	00
1	01
2	02
3	03
4	04
5	05
6	06
7	07
8	08
9	09
10	0A
11	0b
12	0C

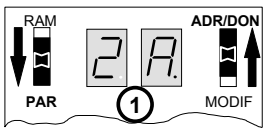
Displayed on digital indicator	Code to be programmed into the controller
13	0d
14	0E
15	0F
16	10
17	11
18	12
19	13
-0	14
-1	15
-2	16
-3	17
-4	18
-5	19

Displayed on digital indicator	Code to be programmed into the controller
ES	1A
RJ	1b
RC	**1C**
RH	1d
RB	1E
SS	1F
P0	20
P1	21
P2	22
P3	23
RS	24
ME	25

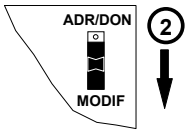
<u>EXAMPLE</u>: Configuration for an installation of 8 LEVELS including 2 BASEMENT.

If at Level **2** - Ground Level (Address **2A**), we desire « **RC** » displayed, we program **1C** to parameter address **2A** (REPTxx : <u>REPeaT</u>er at level <u>xx</u>).

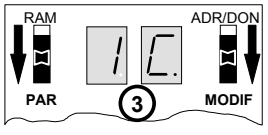
❶ Select address **2A** corresponding to the **2**nd level with Push buttons.



❷ 1 second later, a value is displayed, if this value suits you (our example **1C**) Don't change it, if not, slide the **ADR/DON** - **MODIF** switch to **MODIF**

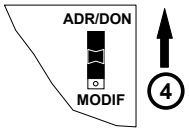


❸ Modify the value to obtain **1C** to display « **RC** » at the **2**nd level.
Register the new value by pushing and releasing both buttons **<u>at the same time</u>**.



❹ Slide the **ADR/DON - MODIF** switch to **ADR/DON**

The new value is memorised.



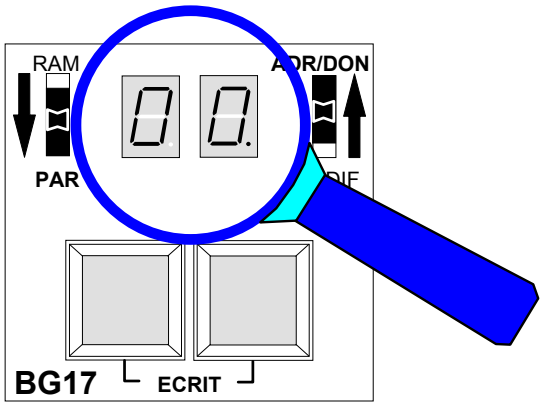
IDFL 30 / 50 MD MODEL, CAR POSITION INDICATOR WITH SCROLLING MESSAGES ARROWS

REPTxx

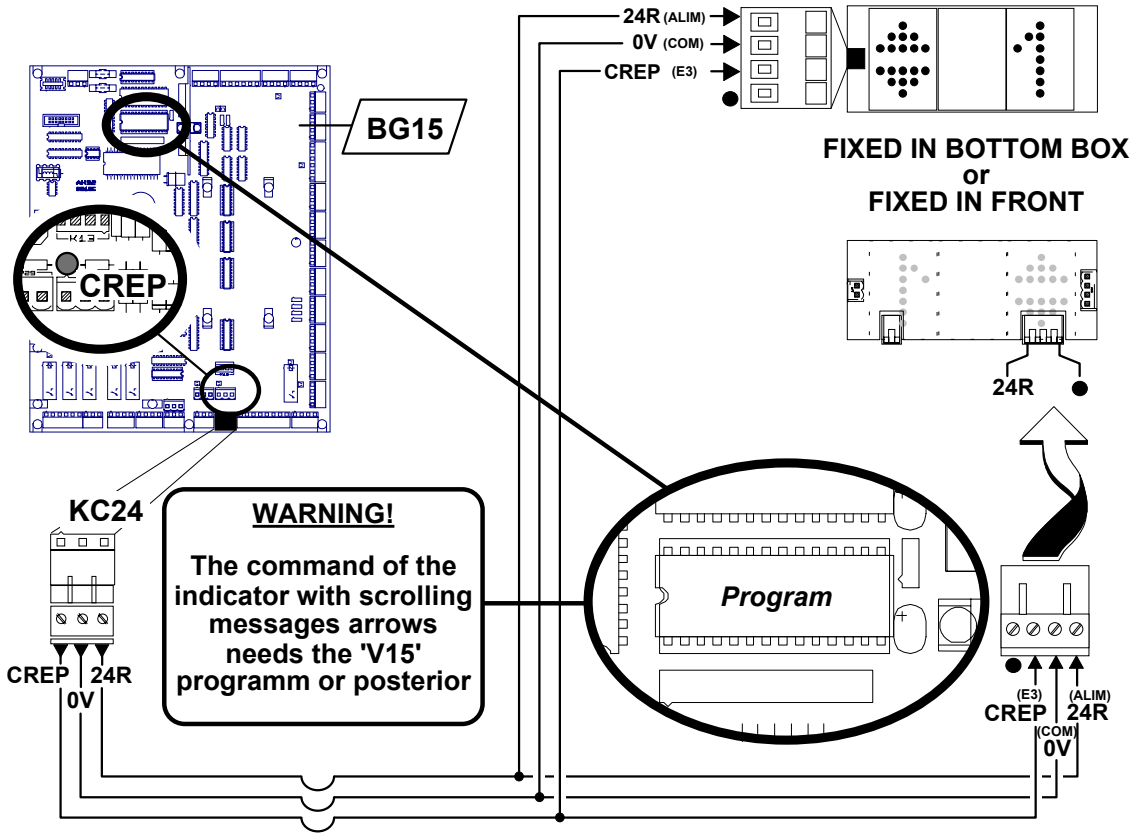
REPeaTer at level xx

Add. 28 to 37

To program <u>if necessary</u>.
The indicator codes are supplied with the digital indicators.



IDFL 30 / 50 MD

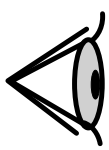


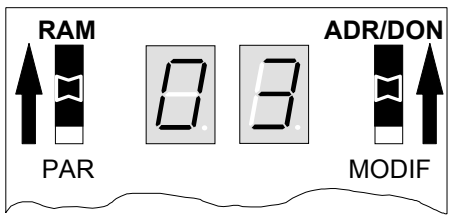
IDFL 30 / 50 MD model, position indicator connection

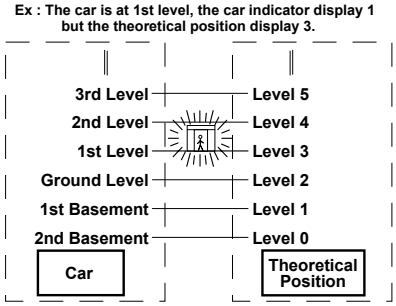
POSLOG

Theoretical POSition of the lift

Add. **24**







« Theoretical position » preview

POSITION INDICATOR WITH SCROLLING MESSAGES
ARROWS PROGRAMMING

Repère du graphisme	F MDCREP1	D MDCREP3	GB MDCREP4	SP MDCREP7
40	⇳ Ø	⇳ Ø	Ø	⇳ Ø
41	⇳ 1	⇳ 1	1	⇳ 1
42	⇳ 2	⇳ 2	2	⇳ 2
43	⇳ 3	⇳ 3	3	⇳ 3
44	⇳ 4	⇳ 4	4	⇳ 4
45	⇳ 5	⇳ 5	5	⇳ 5
46	⇳ 6	⇳ 6	6	⇳ 6
47	⇳ 7	⇳ 7	7	⇳ 7
48	⇳ 8	⇳ 8	8	⇳ 8
49	⇳ 9	⇳ 9	9	⇳ 9
4A	⇳ 1Ø	⇳ 1Ø	1Ø	⇳ 1Ø
4B	⇳ 11	⇳ 11	1 1	⇳ 11
4C	⇳ 12	⇳ 12	1 2	⇳ 12
4D	⇳ 13	⇳ 13	1 3	⇳ 13
4E	⇳ 14	⇳ 14	1 4	⇳ 14
4F	⇳ 15	⇳ 15	1 5	⇳ 15
50	⇳ 16	⇳ 16	1 6	⇳ 16
51	⇳ 17	⇳ 17	1 7	⇳ 17
52	⇳ 18	⇳ 18	1 8	⇳ 18
53	⇳ 19	⇳ 19	1 9	⇳ 19
54	⇳ -Ø	⇳ -Ø	- Ø	⇳ -Ø
55	⇳ -1	⇳ -1	- 1	⇳ -1
56	⇳ -2	⇳ -2	- 2	⇳ -2
57	⇳ -3	⇳ -3	F	⇳ -3
58	⇳ -4	⇳ -4	U B	⇳ -4
59	⇳ -5	⇳ -5	B	⇳ -5
5A	⇳ ES	⇳ F	E	⇳ ES
5B	⇳ RJ	⇳ H	G	⇳ RJ
5C	⇳ RC	⇳ U	L G	⇳ RC
5D	⇳ RH	⇳ B	M	⇳ RH
5E	⇳ RB	⇳ E	L B	⇳ RB
5F	⇳ SS	⇳ G	A	⇳ SS
60	⇳ P0	⇳ K	C	⇳ P0
61	⇳ P1	⇳ LG	D	⇳ P1
62	⇳ P2	⇳ M	B 1	⇳ P2
63	⇳ P3	⇳ OG	B 2	⇳ P3
64	⇳ RS	⇳ P	O S	⇳ RS
65	⇳ ME	⇳ UG	2 Ø	⇳ ME
66	⇳ P4	⇳ W	2 1	⇳ P4
67	⇳ P5	⇳ EG	2 2	⇳ P5
68	⇳ P6	⇳ DG	2 3	⇳ P6
69	⇳ P7	⇳ SG	- 3	⇳ P7
6A	⇳ P8	⇳ U1	U G	⇳ P8
6B	⇳ P9	⇳ U2	P	⇳ P9
6C	⇳ 2Ø	⇳ O1	H	⇳ 2Ø
6D	⇳ 21	⇳ O2	K	⇳ 21
6E	⇳ 22	⇳ O3	L	⇳ 22
6F	⇳ 23	⇳ O4	B 3	⇳ 23
70				
71				
72	HORS SERVICE	AUSSER BETRIEB	OUT OF SERVICE	SIN SERVICIO
73	SERVICE INCENDIE	BRANDFALLSTEUERUNG	FIRE CONTROL	BOMBEROS
74	CABINE RESERVEE	SONDERFAHRT	SPECIAL SERVICE	PRIORIDAD CABINA
	MDCREP1-P / MDCREP1-C	MDCREP3-P / MDCREP3-C	MDCREP4-P / MDCREP4-C	MDCREP7-P / MDCREP7-C
75	LIBRE / SURCHARGE	IN BETRIEB / ÜBERLAST	IN SERVICE / OVERLOAD	ELECTRA VITORIA

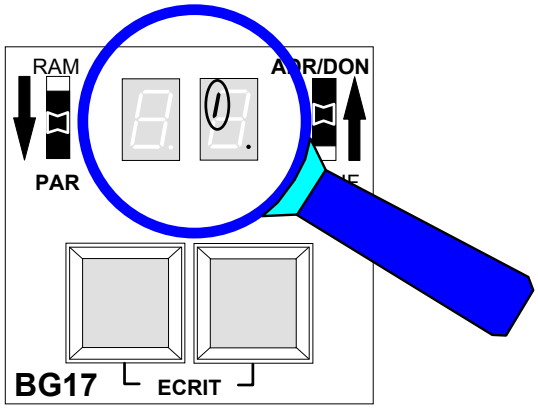
FL 30 / 50 MODEL, CAR DIRECTION ARROWS

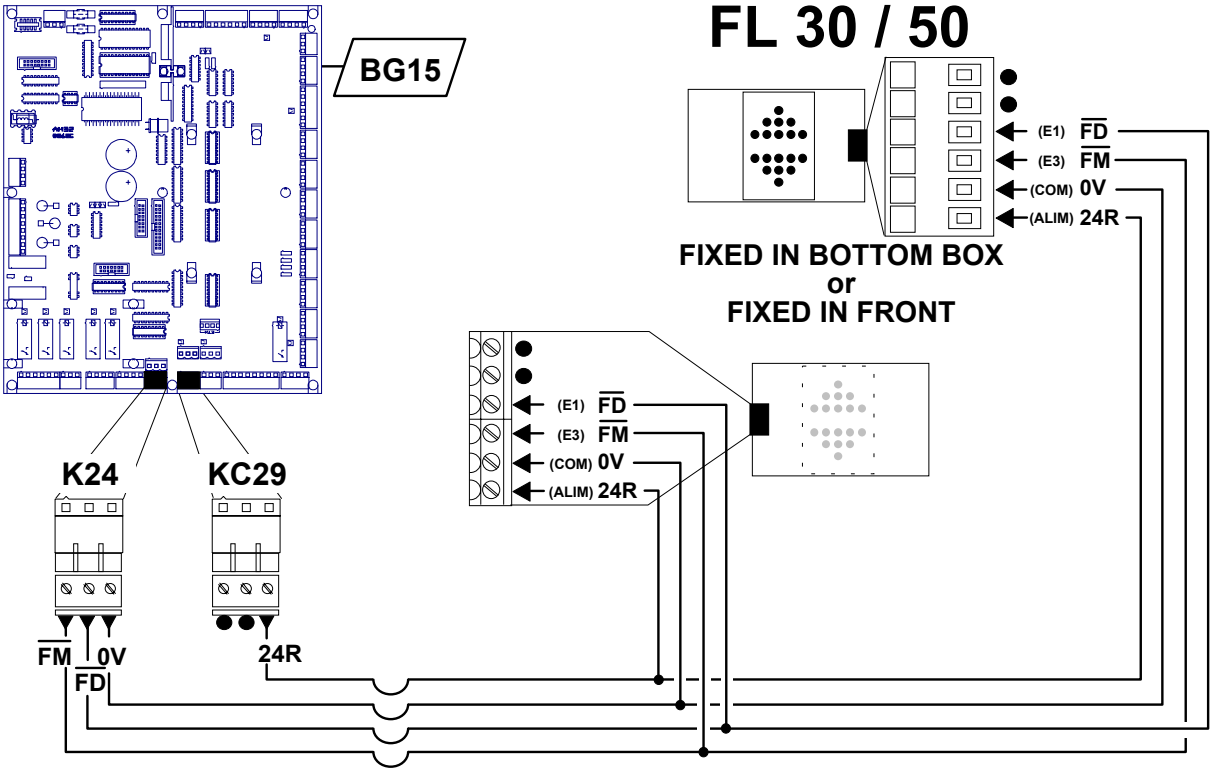
FLCLIG

Direction indicator flashing

Add. **08**

Seg. **5**





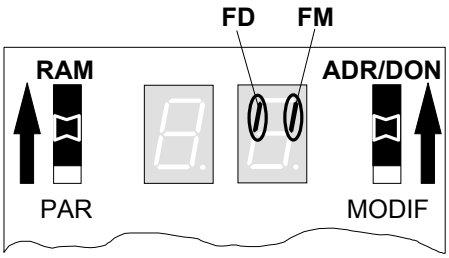
FL 30 / 50 model, direction arrows connection

FM & FD

Up arrow & Down arrow

Add. **15**

Seg. **4** and **5**



Direction arrows preview

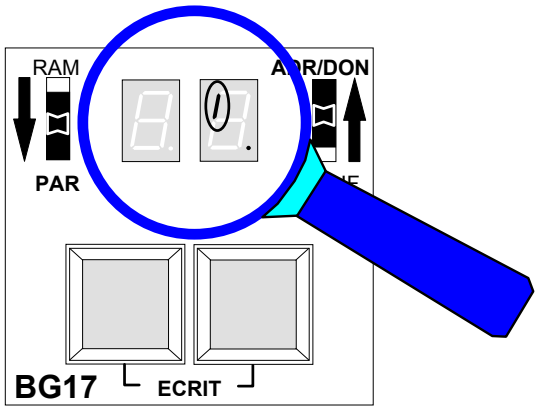
MODEL WITH LIGHT LESS THAN TO 1,2 W (TOTAL 2,4 W MAX), CAR DIRECTION ARROWS

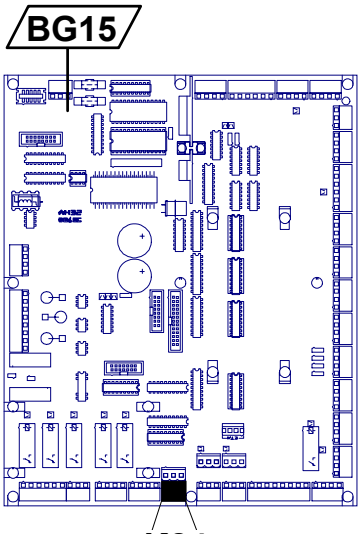
FLCLIG

Direction indicator flashing

Add. **08**

Seg. **5**

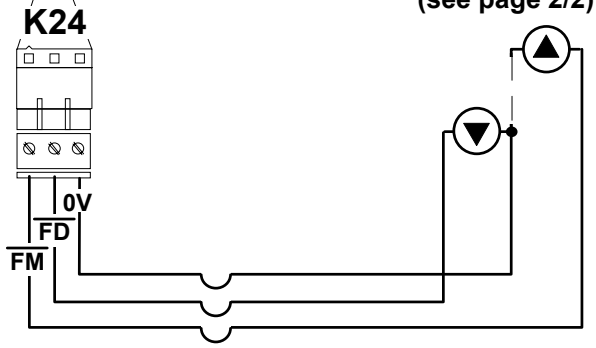




WARNING !!!
Light 24 V
1,2 W max.
PER SENS
Dont forget the possible arrows on landing

In case of overload of the admissible nominal power (1,2 W)
Connect 1 P217 box
PER SENS

(see page 2/2)



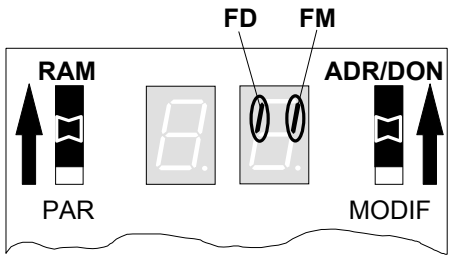
Direction arrows connection

FM & FD

Up arrow & Down arrow

Add. **15**

Seg. **4** and **5**



Direction arrows preview

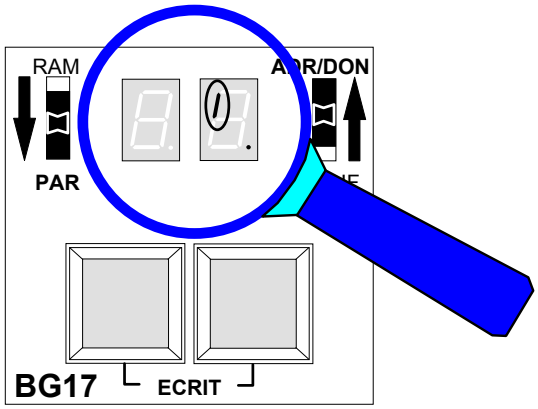
MODEL WITH LIGHT SUPERIOR TO 1,2 W (TOTAL 2,4 W MAX), CAR DIRECTION ARROWS

FLCLIG

Direction indicator flashing

Add. **08**

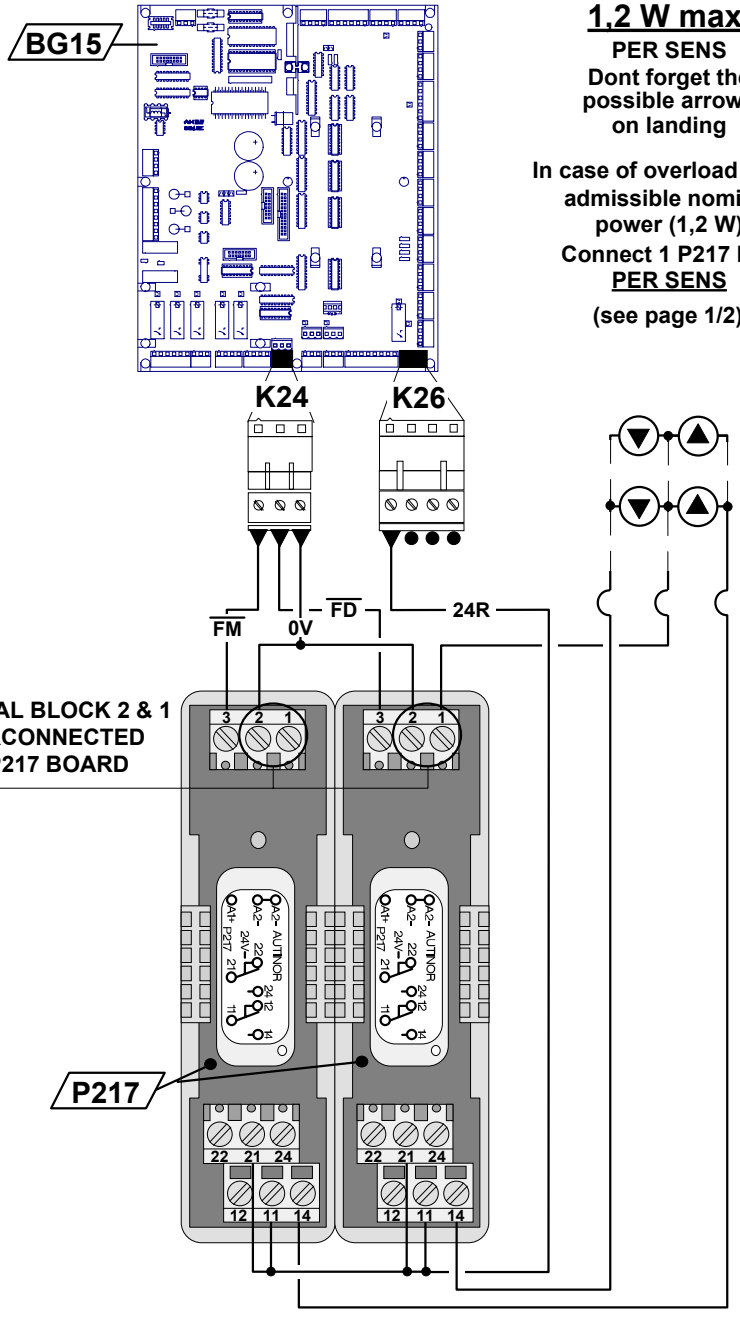
Seg. **5**



WARNING !!!
Light 24 V
1,2 W max.
PER SENS
Dont forget the possible arrows on landing

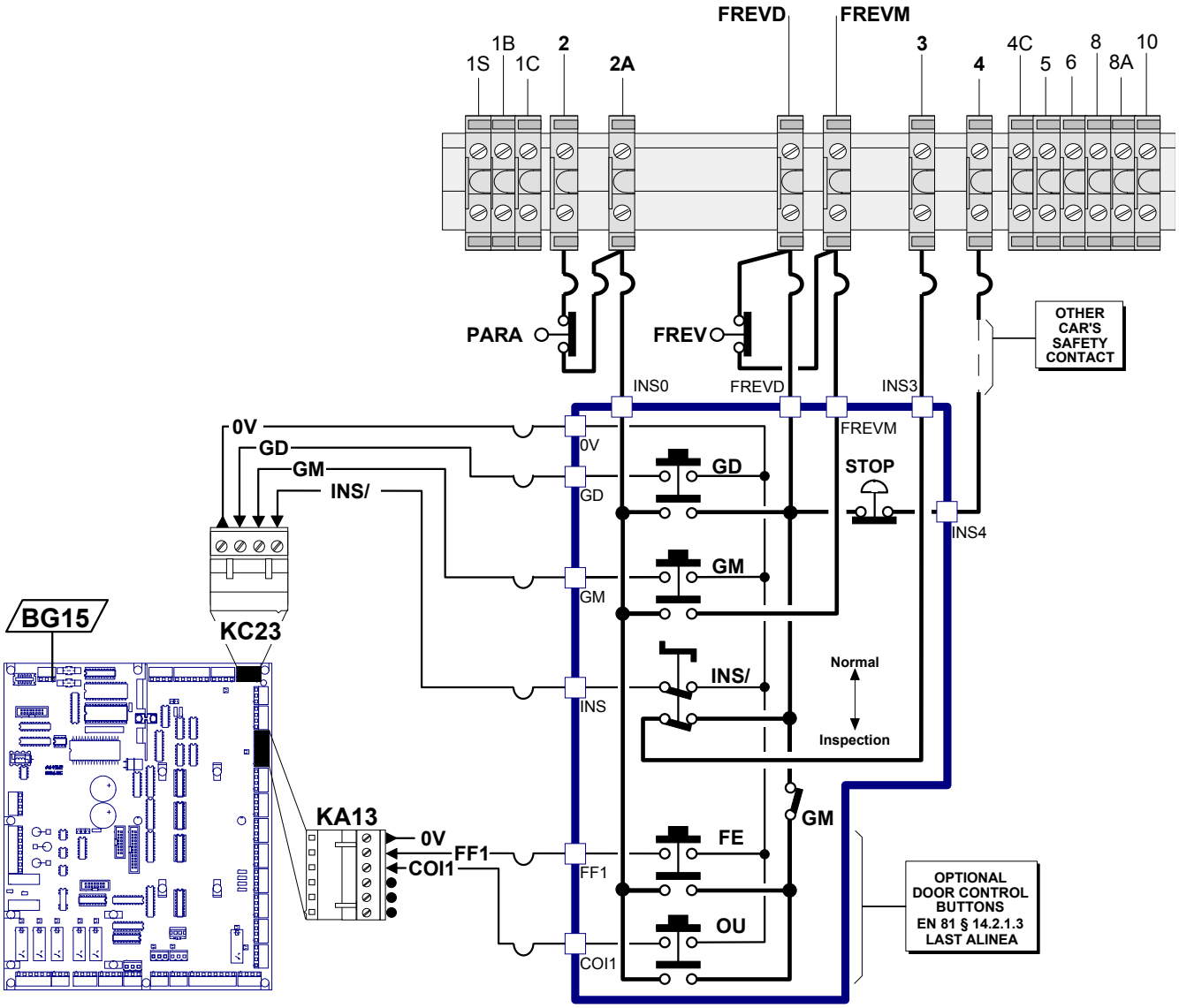
In case of overload of the admissible nominal power (1,2 W)
Connect 1 P217 box
PER SENS

(see page 1/2)



Direction arrows connection

INSPECTION MODE (1/3)



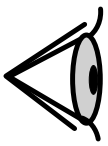
Inspection box

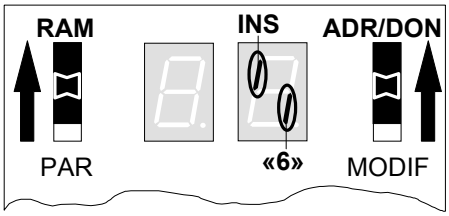
MINIBLOC

INSpection operation

Add. **FF**

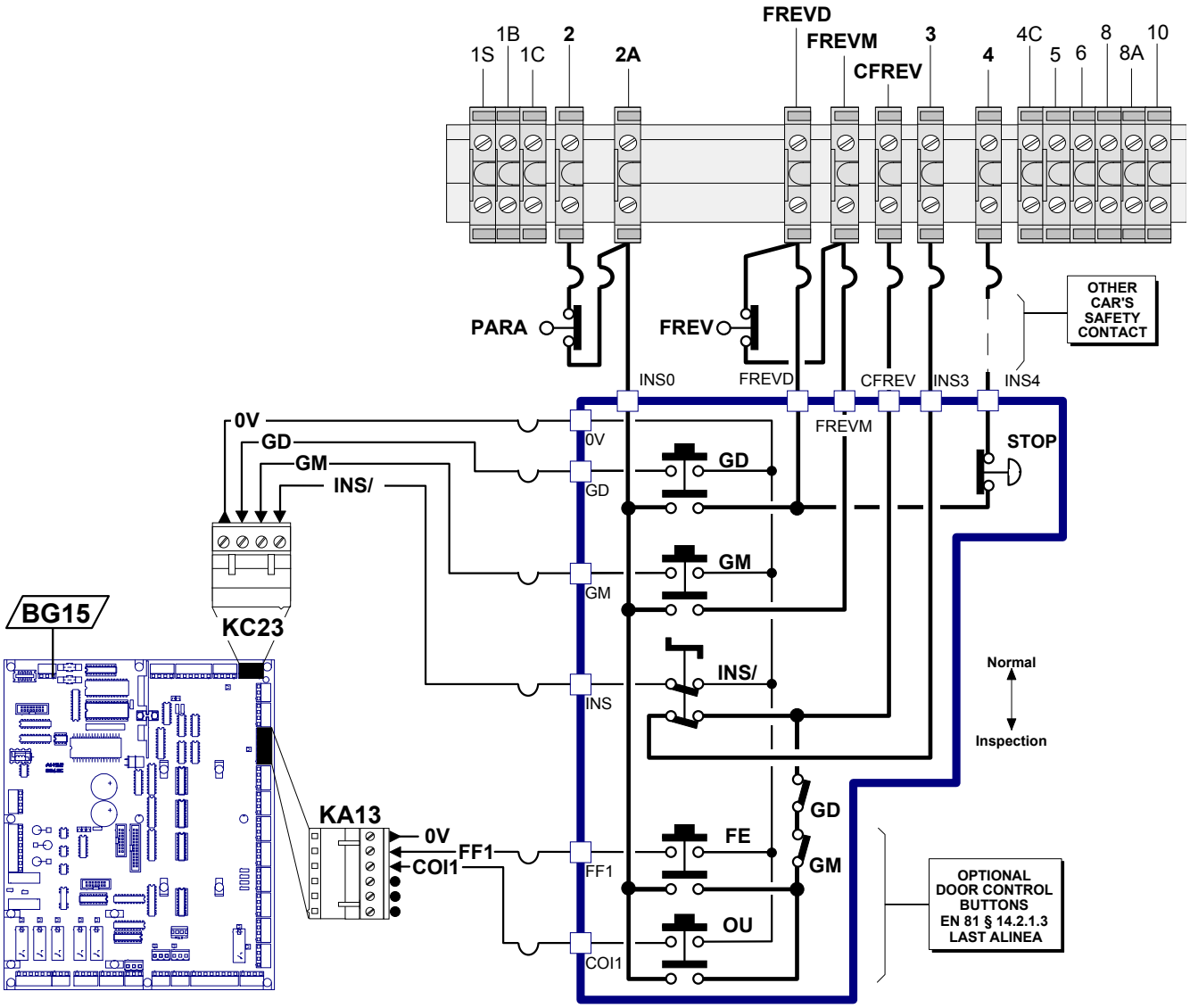
Seg. **5**





« Inspection mode » preview

INSPECTION MODE FOR STANDARD XP P82-511 (2/3)



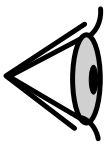
Inspection box for STANDARD XP P82-511

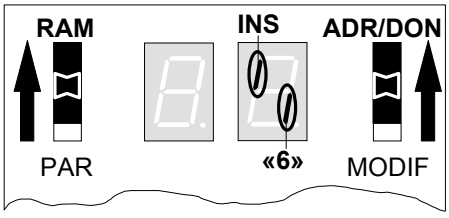
MINIBLOC

INSpection operation

Add. **FF**

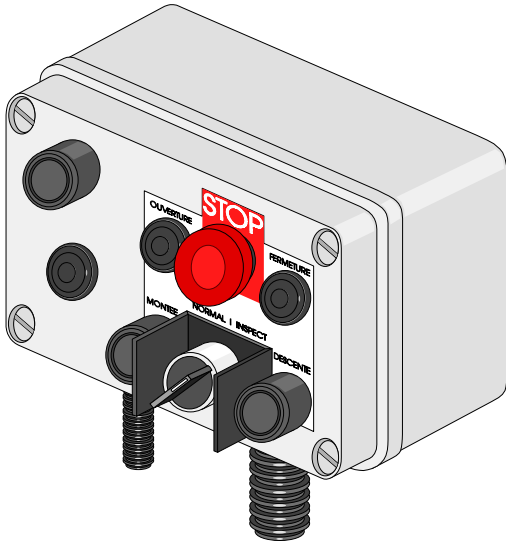
Seg. **5**



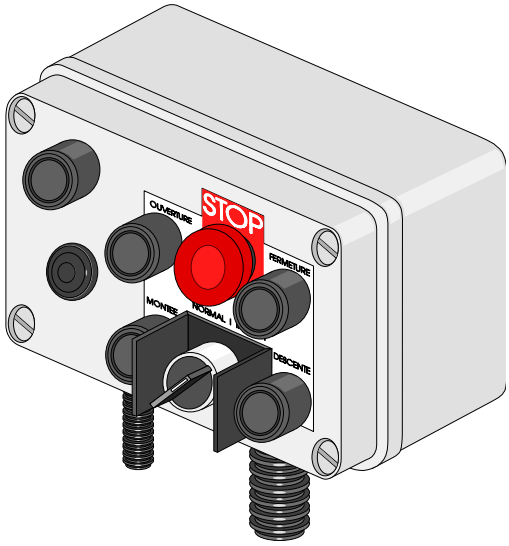


Viewing « Inspection mode »

INSPECTION MODE (3/3)



Inspection box

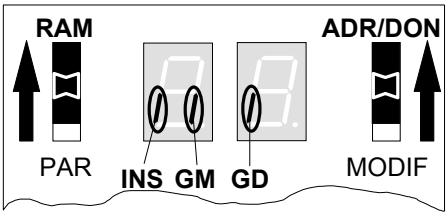


Inspection box with door control buttons, EN 81 § 14.2.1.3

INS, GM & GD

INSpection mode
Up (GM)
Down (GD)

Add. **0C**
Seg. **3**, **2** & **1**

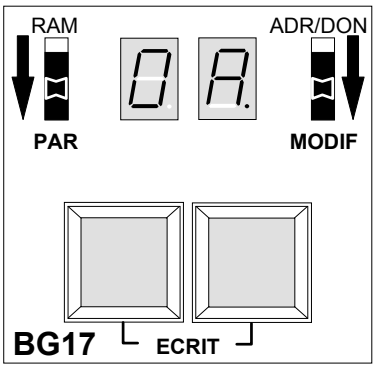


Viewing inspection box

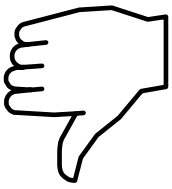
TINS

INSpection time

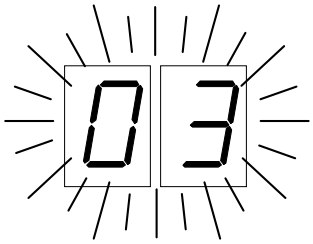
Add. **0D**



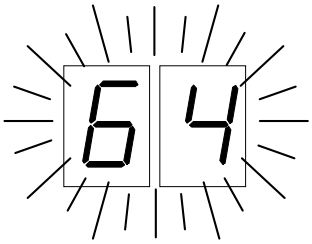
Adjustment of the « Inspection time »

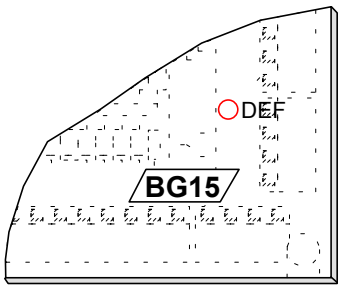


Consequences of inspection movement too long



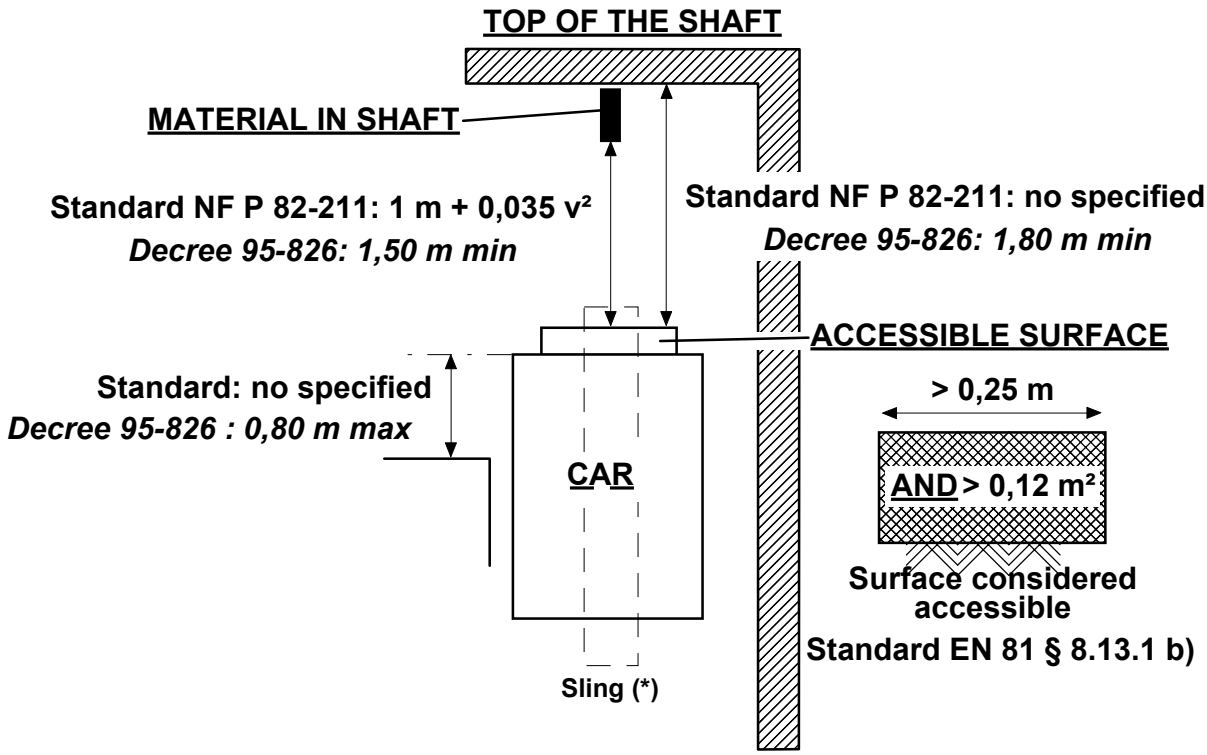
Consequences of Inspection and emergency mode engaged at the same time





INSPECTION LIMIT SWITCH

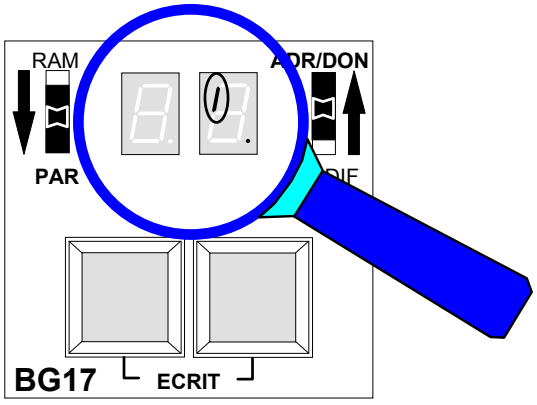
In France, to fulfil decree n° 95-826 of 30 June 1995, it is advised to install a limit switch for inspection.
Distances to fulfil when this device goes on are illustrated below.



(*) The cross head are not considered as work surface because they must not be used during the movement of the car (interpretation CEN n° 139)

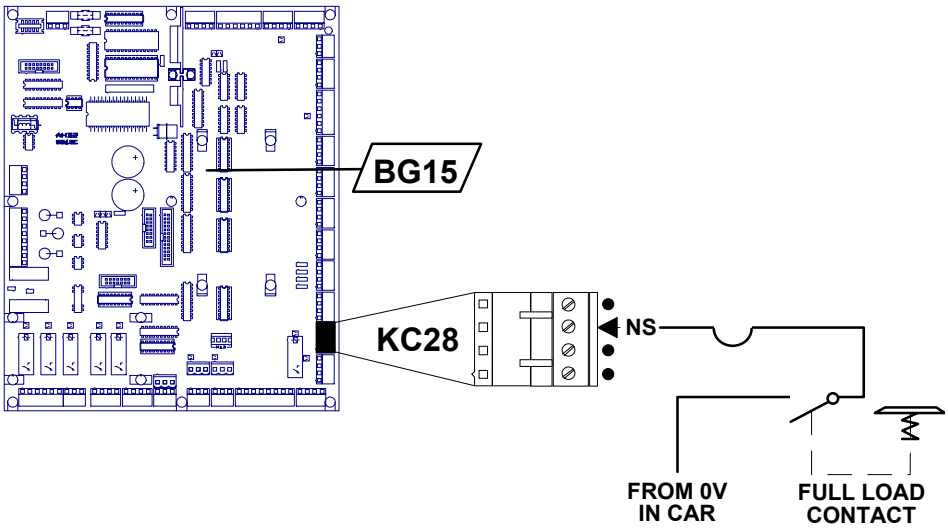
FAST SPEED INSPECTION

IGV
Fast speed inspection
Add. **09**
Seg. **5**



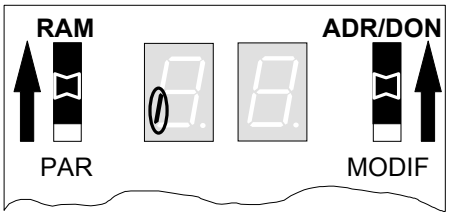
IN PROGRAMMING « IGV », THE CAR START INSTANTLY IN FAST SPEED (GV) WHEN PUSHING ON THE PUSH BUTTONS « GM » OR « GD »

FULL LOAD (« NON STOP »)

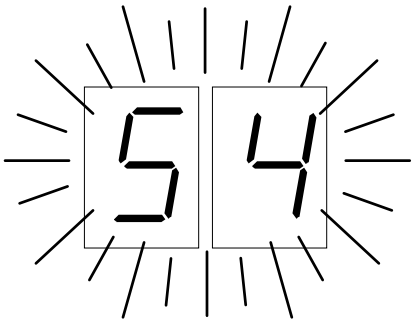


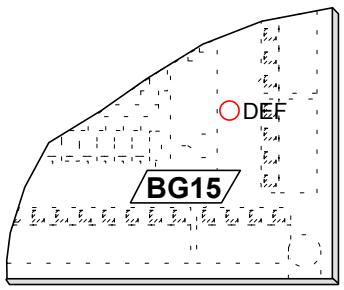
Connection of the « Full load » contact

NS
Non stop
Add. **0E**
Seg. **3**



Viewing the « Full load » contact





Consequences of the « Full load »

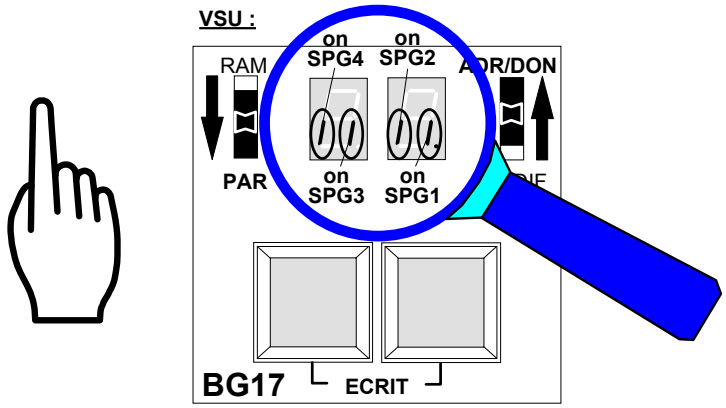
CAR OVERLOAD (1/2)

VSU

Overload light on programmable outputs

Add. **78**

Seg. **0** to **3**

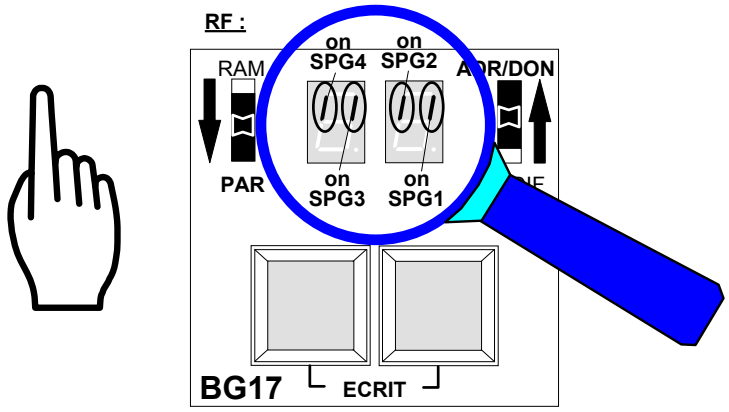


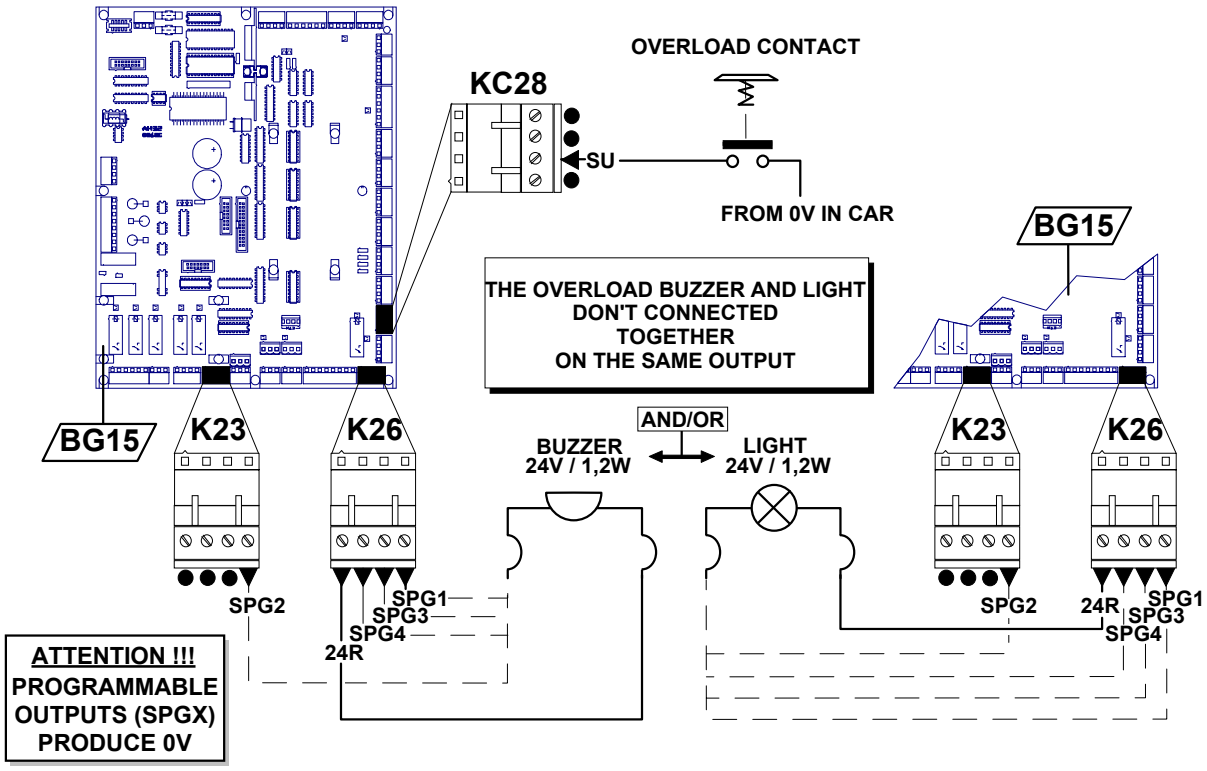
RF

Overload buzzer on programmable outputs

Add. **78**

Seg. **4** to **7**

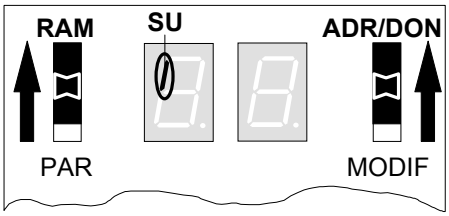




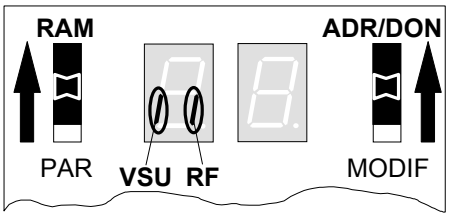
« Car overload » contact, light and buzzer connection

CAR OVERLOAD (2/2)

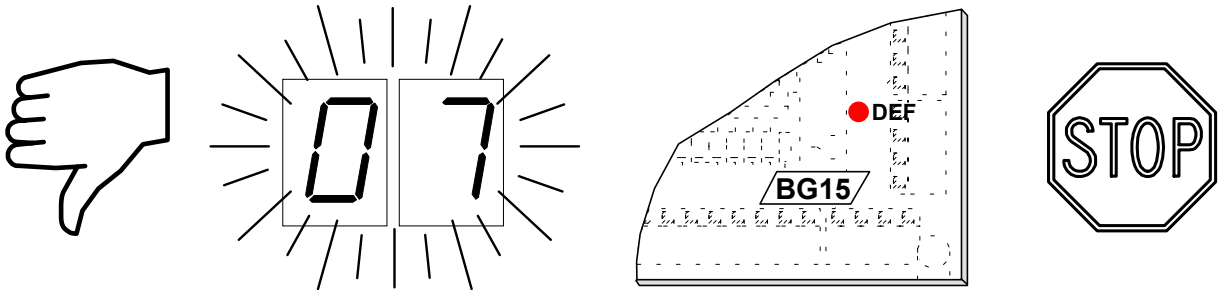
SU
Overload
Add. **0C**
Seg. **7**



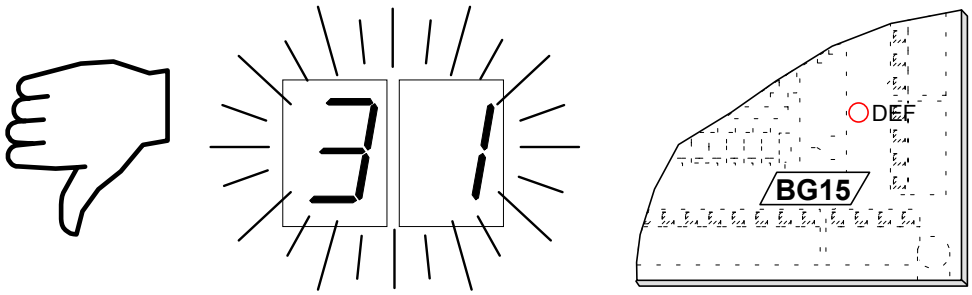
VSU & RF
Overload light &
Overload buzzer
Add. **15**
Seg. **2** & **3**



« Car overload » contact, light and buzzer preview

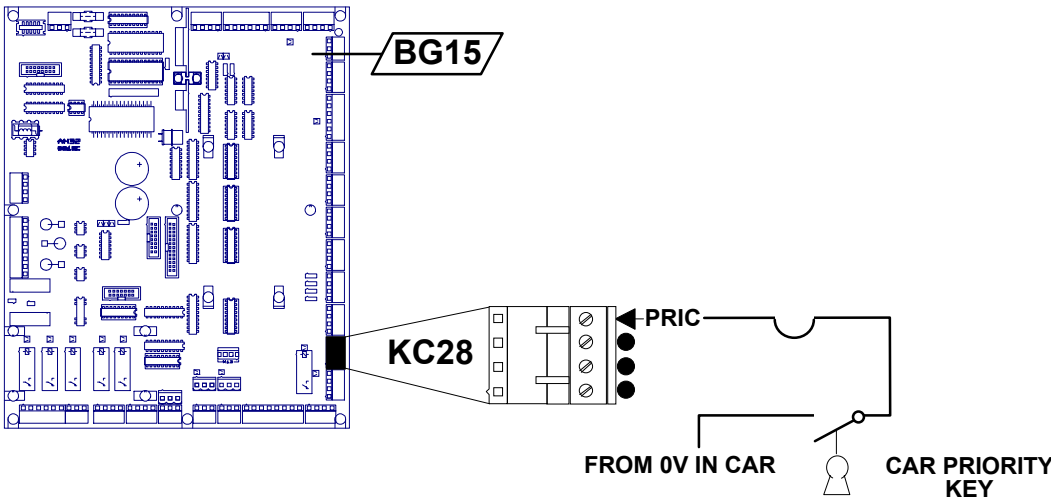


Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

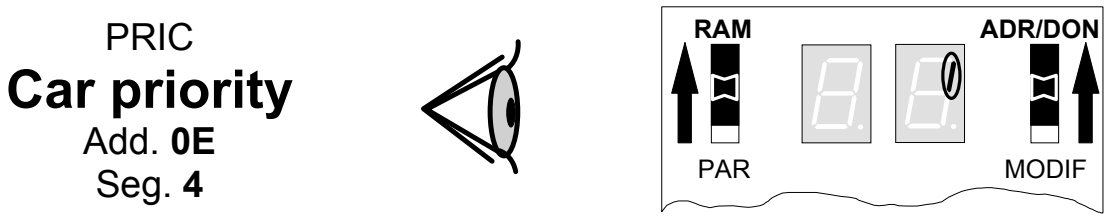


« Car overload » consequences

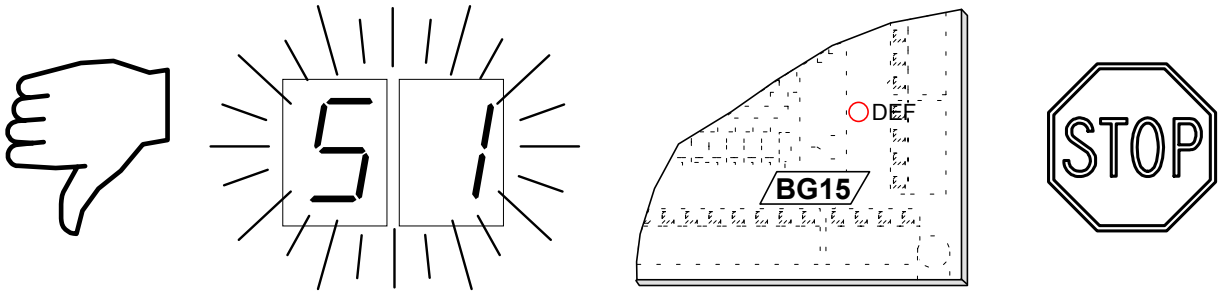
CAR RESERVATION « CAR PRIORITY »



« Car reservation » contact connection



« Car reservation » contact state preview



« Car reservation » consequences

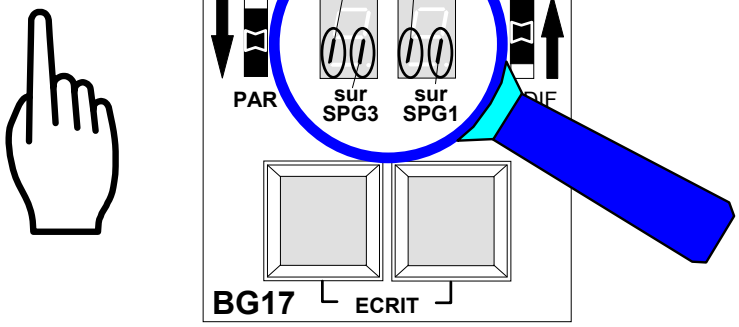
FIREMAN SERVICE LIGHT

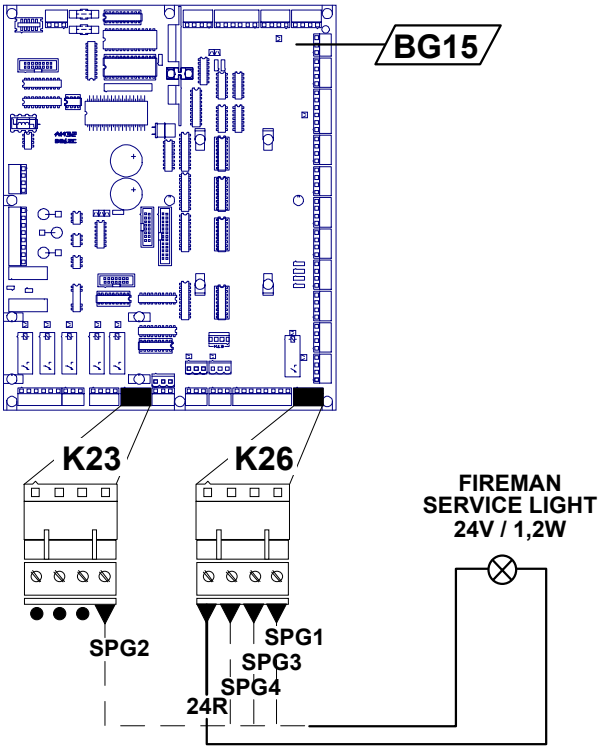
VPMP

Fireman service light on programmable outputs

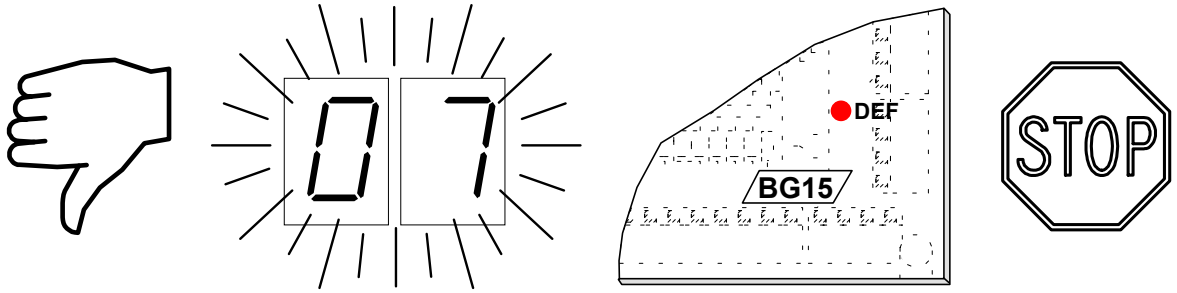
Add. **7A**

Seg. **0** to **3**





Fireman service light connection



Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

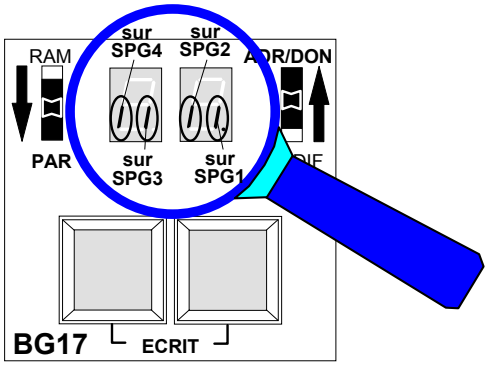
AUTOMATIC CAR LIGHT TIME (BH07) (1/2)

LU

Automatic light on programmable outputs

Add. **7B**

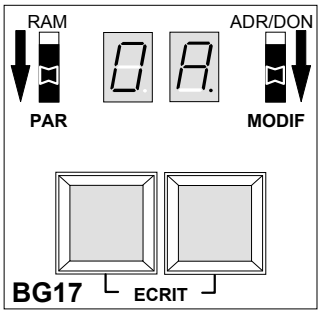
Seg. **0** to **3**

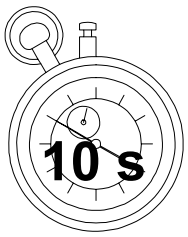


TPLU

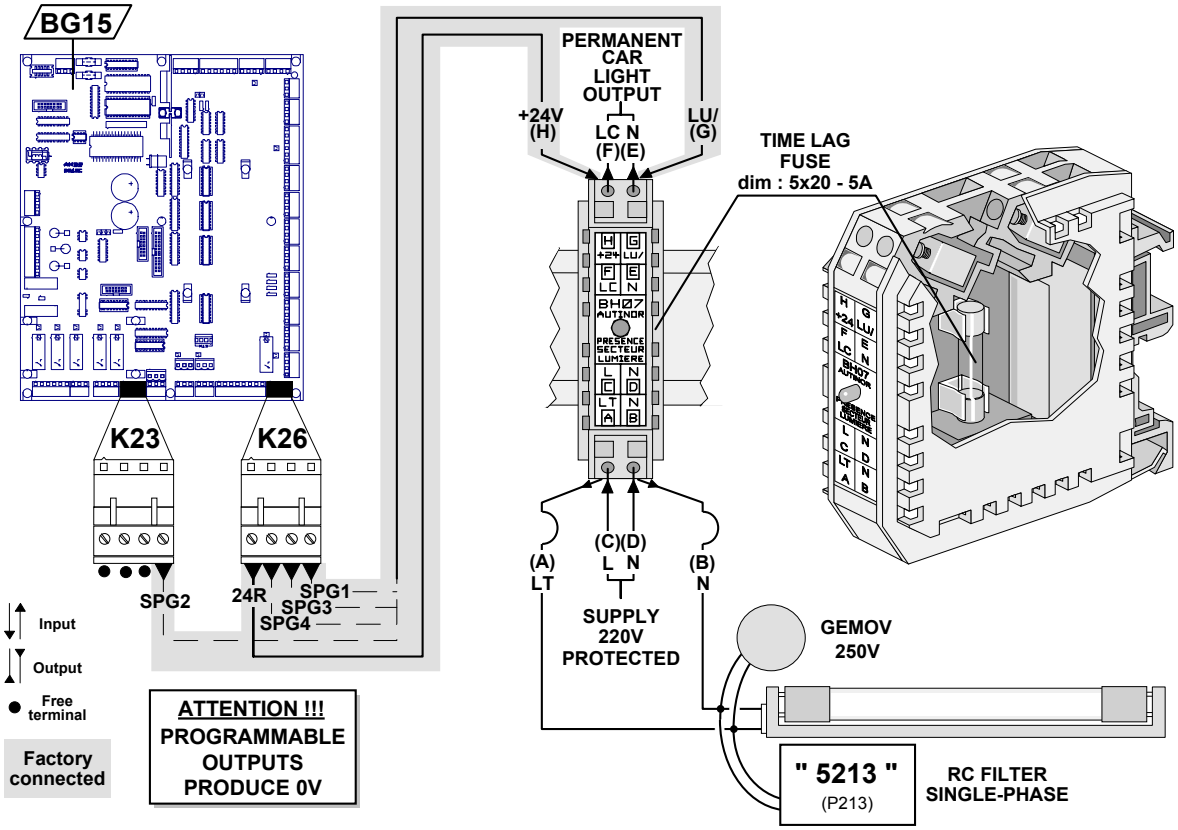
Automatic light time

Add. **0C**





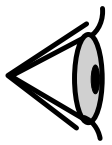
Hex

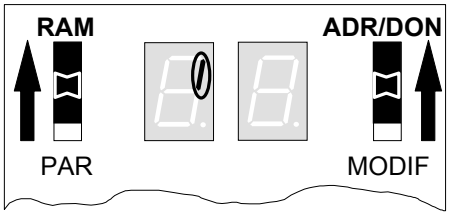


Automatic car light time connection

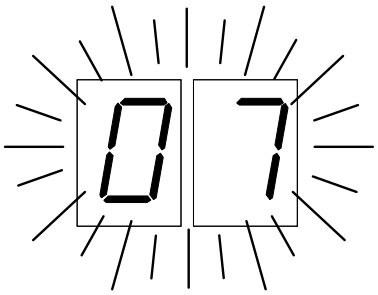
AUTOMATIC CAR LIGHT TIME (BH07) (2/2)

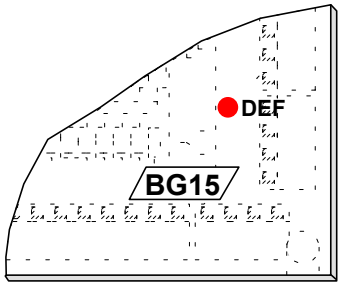
LU
Automatic light
Add. **13**
Seg. **6**





Automatic light state preview





Consequences of a configuration error of outputs SPG1, SPG2, SPG3 and SPG4 (several functions at the same physical output)

CHAPTER VII

COMMISSIONING PROCEDURE

PROCEDURE TO BE FOLLOWED TO CARRY OUT THE AUTOMATIC SET-UP OF LEVELS (1/4)

BEFORE STARTING:

This levelling adjustment is done in INSPECTION (INS) mode and not in MAN. For this connect the inspection wire coming from the car roof to INS, and bridge MAN and 0V.

Do not put the magnets on the tape, but take them with you, as well as this installation manual.

This automatic relevelling procedure allows you to measure and register directly in the controller the landing heights of each corresponding floor. Each level corresponds to an altitude on the slotted tape.

The lowest level is **00 00**.

PROCEDURE TO FOLLOW :

1) Turn the switch to **INS**.

2) Switch the **MB32 VECTOR** power off and then on again.

3) With the left-hand switch of the **BG17** communication tool on **PAR**, programme **80** at address **E0**.

4) Climb onto the car roof and take the lift down to the lowest level. **Stop exactly at the floor level!**

5) Press the « **STOP** » button on the car roof.

6) Press **GM** and **GD** at the same time for **5 seconds**.

You can always correct the last registered height, as long as you have not moved by more than 20 centimetres.

7) Position the **ED** magnet above the **O03** tape-head at a height (**D**) corresponding to the slow down distance required (see graph on next page).

Vn : Nominal speed in metres per second.
D : Slow down distance in metres

Example: If the lift speed is **1.60 m/s**, the graph page 3 recommends a slow down distance (**D**) between **2 m 00** and **3 m 00,** in our example: **2.50 m**.

PROCEDURE TO BE FOLLOWED TO CARRY OUT THE AUTOMATIC SET-UP OF LEVELS (2/4)

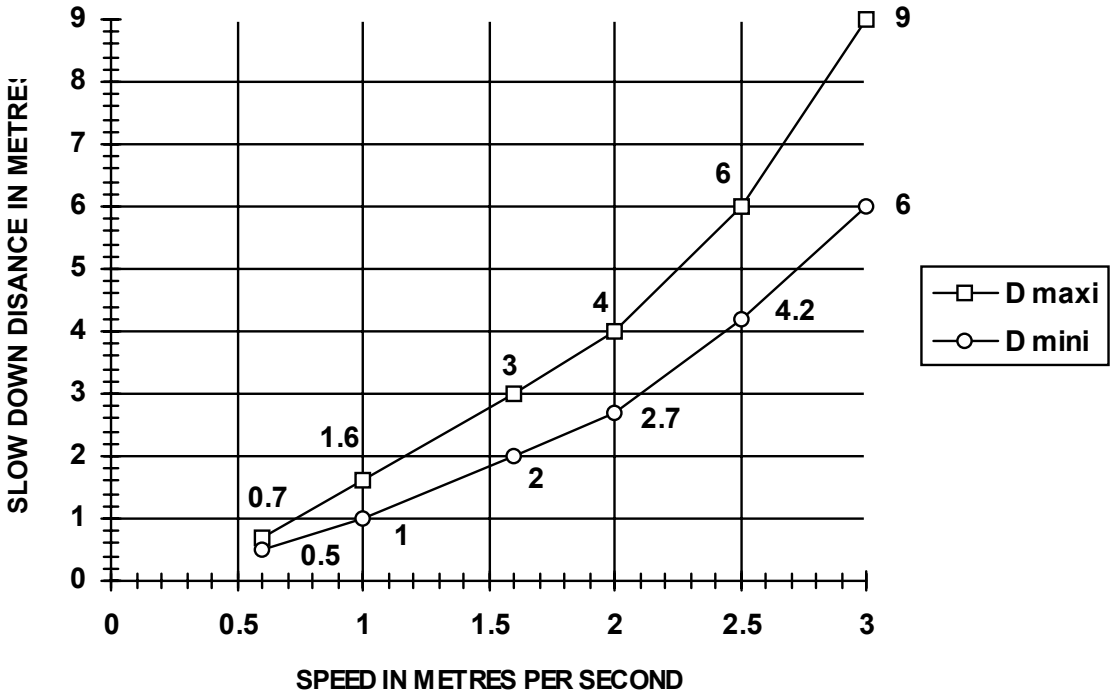


Figure 1 Slow down distance D in relation to the nominal speed

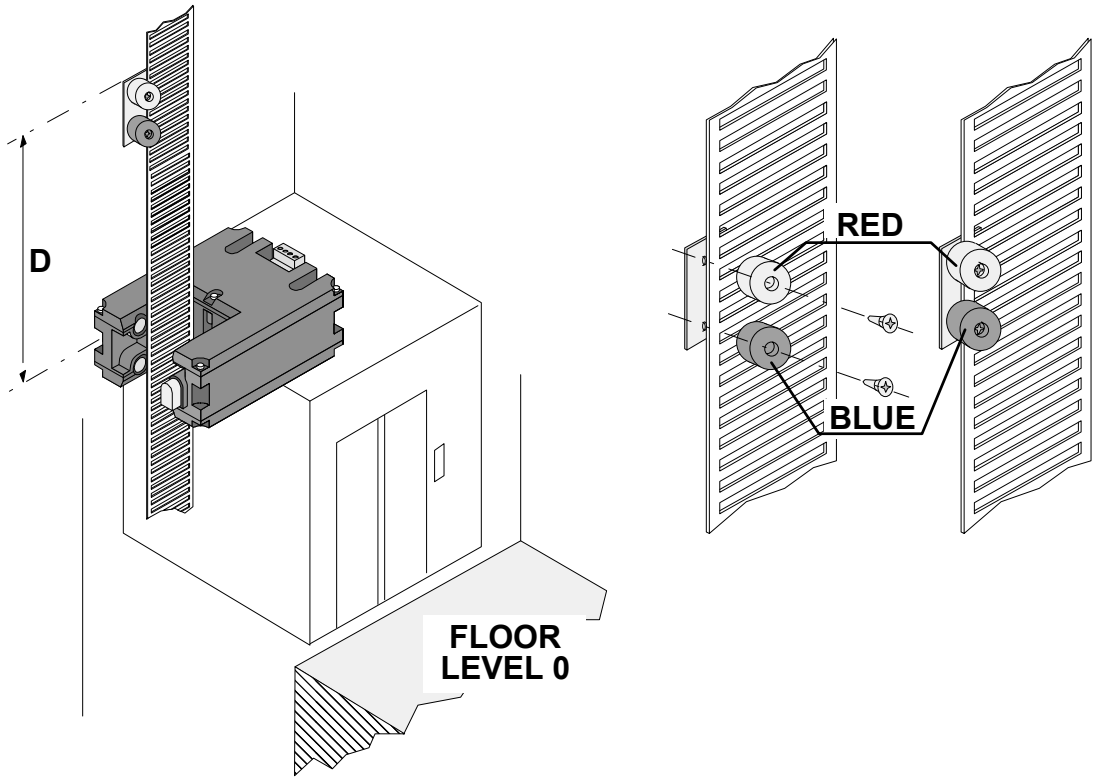


Figure 2 Positioning of "ED" magnet

PROCEDURE TO BE FOLLOWED TO CARRY OUT THE AUTOMATIC SET-UP OF LEVELS (3/4)

8) Release the « **STOP** » button on the car roof and go up to **level 1** on inspection, stopping **exactly at floor level!**

9) Press the « **STOP** » button on the car roof.

10) Press **GM** and **GD** at the same time for **5 seconds**.

The software will memorise the height corresponding to level **1**.

11) Repeat steps **7)** to **9)** until you reach the highest level.

12) Come back down to the lowest level.

By passing the **ED** magnets coming down, you automatically load the slow-down distance used by all levels going up or coming down. In addition the value **80** programmed at address **E0** will reset to **00** to exit the automatic level set-up procedure.

13) Move the lift towards the machine room on inspection, and leave the car roof, **leaving the switch still on inspection**.

14) Turn the **MB32 VECTOR** power off and then back on again.

If fault code 61 is shown on the communication tool, a mistake has been made during the level set-up procedure, and the whole procedure needs to be done again ...

15) If the fault code **61** does not appear, **cut the safety lane**.

Copy down each floor height at addresses **80** to **9F** in the table on page 5, so that later on you can check the lift's stopping precision (**table 1**) and the slow down distance read at addresses **d0** and **d1** (**table 2**).

16) Turn the inspection switch on the car roof to **Normal**.

17) Return to the machine room.

18) Read the chapter « **What to know before starting of at full speed** » before reconnecting the **safety lane**. In this way you can check that the lift carries out correctly its reset sequence.

PROCEDURE TO BE FOLLOWED TO CARRY OUT THE AUTOMATIC SET-UP OF LEVELS (4/4)

Table 1 floor heights

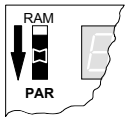
	ADDRESSES FOR THE 16 FLOORS		FLOOR HEIGHT	
Level 0 :	**81**	**80**		
Level 1 :	**83**	**82**		
Level 2 :	**85**	**84**		
Level 3 :	**87**	**86**		
Level 4 :	**89**	**88**		
Level 5 :	**8b**	**8A**		
Level 6 :	**8d**	**8C**		
Level 7 :	**8F**	**8E**		
Level 8 :	**91**	**90**		
Level 9 :	**93**	**92**		
Level 10 :	**95**	**94**		
Level 11 :	**97**	**96**		
Level 12 :	**99**	**98**		
Level 13 :	**9b**	**9A**		
Level 14 :	**9d**	**9C**		
Level 15 :	**9F**	**9E**		

Table 2 slow down distance

SLOW DOWN DISTANCE IN MILLIMETRES		
Addresses	**d0**	**d1**
	thousands, hundred	tens, units

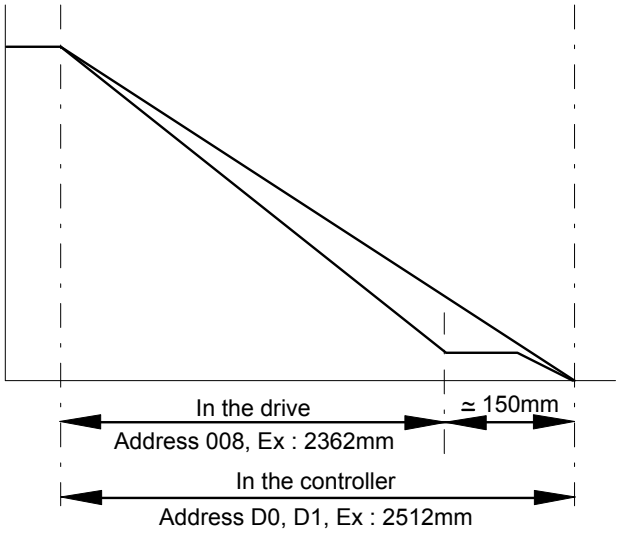
CHECK THAT THE SLOW DOWN DISTANCE "D" CORRESPONDS TO THE HEIGHT AT WHICH YOU HAVE POSITIONED THE MAGNETS.

WHAT TO KNOW BEFORE STARTING OFF AT FULL SPEED (1/3)

1) To programme the slow down distance on the vectorial frequency drive.

a) Slow down distance including relevelling speed V0.

Example: you have positioned your magnet at **2.5m**, during the level height set-up phase and the controller shows at addresses **D0** and **D1**: **2512**.

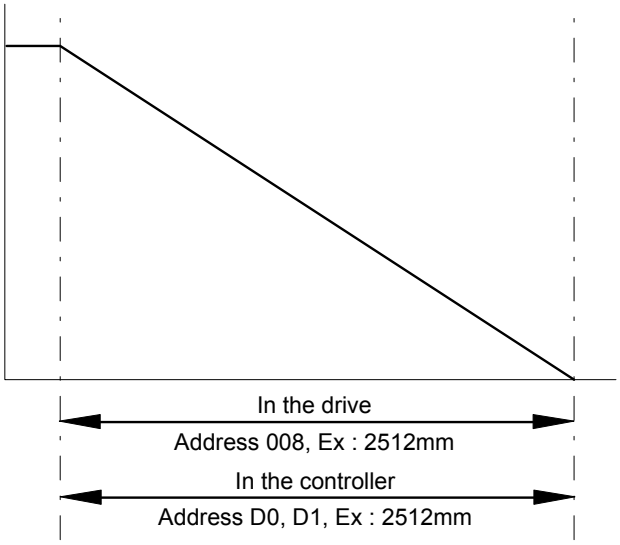


Reduce the **D0D1** distance by **150mm** and programme this value at address **008** on the frequency drive.
These **150mm** represent the distance travelled in **V0** and the final stopping distance programmed at addresses **D2** and **D3**. In our example you should programme 2362 at address **008** in the frequency drive.

b) Slow down distance with direct approach.

Segment **5** at address **00E** must be ON.

Example: you have positioned your magnet at **2.5m**, during the level height set-up phase and the controller shows at addresses **D0** and **D1**: **2512**.



Programme the same value at address **008** in the vector drive.

WHAT TO KNOW BEFORE STARTING OFF AT FULL SPEED (2/3)

2) To programme the Thermal Protection.

Read the nominal current written on the motor faceplate and copy the value at address **00D** of the drive.

3) Address 00E details (Hardware Option)

Segment **0: Intégrator.**

Segment **3: MLi.**

Segment **5: Direct approach.**

Segment **6: 65°Défault temperature.**

Segment **7: Mlift 220V.**

WHAT TO KNOW BEFORE STARTING OFF AT FULL SPEED (3/3)

ABOUT THE CONTROLLER DRIVE:

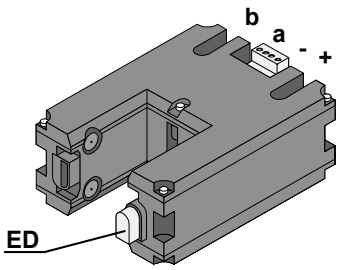
You need to know in which direction the car will go as soon as you turn on the power! ! !

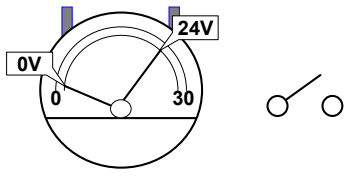
When using the tape and **O03** tape head, the magnet which was placed at the bottom during the automatic level set-up plays the role of the special slow-down vane and contact **ED**.

This magnet acts upon the bistable **ED** mounted on the **O03** tape head.

• **When the contact is open**, **the car is below the magnet**. After power up, the **MB32 VECTOR** sends the lift up to cross the magnet which will reset the tape head.

The lift will stop at the next floor where it can slow down before returning to the main floor. You can check that the **ED** contact is open by measuring the DC between the " **-** " and " **b** " terminals on the **O03** tape head. The voltage measured should be **0V** or **24V** (depending on whether beam B is broken or not).



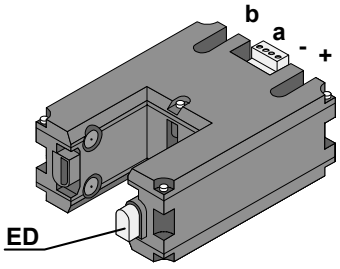


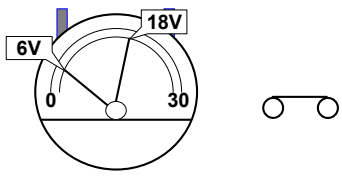
Contact ED is open when the DC voltage measured between " - " and " b " is 0V or 24V .

• **When the contact is closed**, **the car is above the magnet**. After power up, the **MB32 VECTOR** sends the car down to cross the magnet which will reset the tape head.

The lift will stop at the next floor where it can slow down before returning to the main floor.

You can check that the **ED** contact is closed by measuring the DC voltage between the " **-** " and " **b** " terminals on the **O03** tape head. The voltage measured should be **6V** or **18V** (depending on whether beam B is broken or not).





Contact ED is close when the DC voltage measured between " - " and " b " is 6V or 18V .

If all values seem coherent, you can carry out your first full speed test runs by closing the safety lane.

PARAMETER ADJUSTMENT AT FULL SPEED (1/3)

I. Adjustment of the Synchronous Speed

At the moment, **V2** and the synchronous speed (**VSy)** are the same value.

1) Select address **114** on the frequency drive communication device.
2) Carry out a full speed movement, and read the synchronous speed displayed. Copy this value into parameter **Vsy**, address **006**.

I. Automatic adjustment of the up stopping precision

This procedure only works in the case of a slow down distance including the relevelling speed **V0**.

1) Send the lift to the lowest level.
2) With the left-hand switch of the **BG17** communication tool on **PAR**, programme **40** at address **E0**.

   Warning: When you slide the switch back up, **E0** will be displayed followed by **42**.

3) Send the car up one floor on normal.

   When the car stops, the value **42** programmed at **E0** will reset to **00** to exit the automatic adjustment procedure.

Warning: The lift may perhaps not be exactly at floor level.
This is normal it will be at floor level after the next journey.

III.Automatic adjustment of the down stopping precision

This procedure only works in the case of a slow down distance including the relevelling speed **V0**.

1) Send the lift to the highest level.
2) With the left-hand switch of the **BG17** communication tool on **PAR**, programme **20** at address **E0**.

Warning: When you slide the switch back up, **E0** will display followed by **21**.

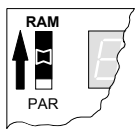
3) Send the car down one floor on normal.

   When the car stops, the value **21** programmed at **E0** will reset to **00** to exit the automatic adjustment procedure.

Warning: The lift may perhaps not be exactly at floor level.
This is normal..., it will be at floor level after the next journey.

To find out the stopping precision at each level, with the left-hand switch of the **BG17** on **RAM**, check the height counter at **23** and **22**.

The value is given in impulses and in hexadecimal. **1** impulse = **2** millimetres.



Height counter at addresses **23** and **22**

Ad 23 = 00	Ad 22 = 03

Example:
Sending the car to the very bottom, if you read **00** at **23** and **03** at **22**, this means that the car stopped **3** impulses (about **6mm**) from the target (**00 03**).

PARAMETERS ADJUSTMENT AT FULL SPEED (2/3)

IV. Adjustment of the direct approach precision

At address **00E**, segment **5** should be on.

1) Select address **22**, with the little left-hand red switch in the **RAM** (upper) position, and send the lift to the bottom floor. The tape head may show a positive value e.g. 09 (i.e. 9 impulses x 2mm = **18mm),** which means that the car has stopped **18mm** above floor level.

Increase the value programmed at address **008** (**DV2**) by this **18mm.**

If the lift stops after floor level, reduce the value programmed at address **008** (**DV2**) by these **18mm**.

V. Automatic adjustment of the hysterisis zone

This must be done if the lowest level is not the main floor.

1) Position the lift above the **ED** magnets.
2) With the left-hand switch of the **BG17** communication tool on **PAR**, programme **10** at address **E0**.
3) Send the car up one floor and then down one floor, so that the tape-head passes the **ED** magnets in both directions.

VI. Positioning of EM magnet at top floor

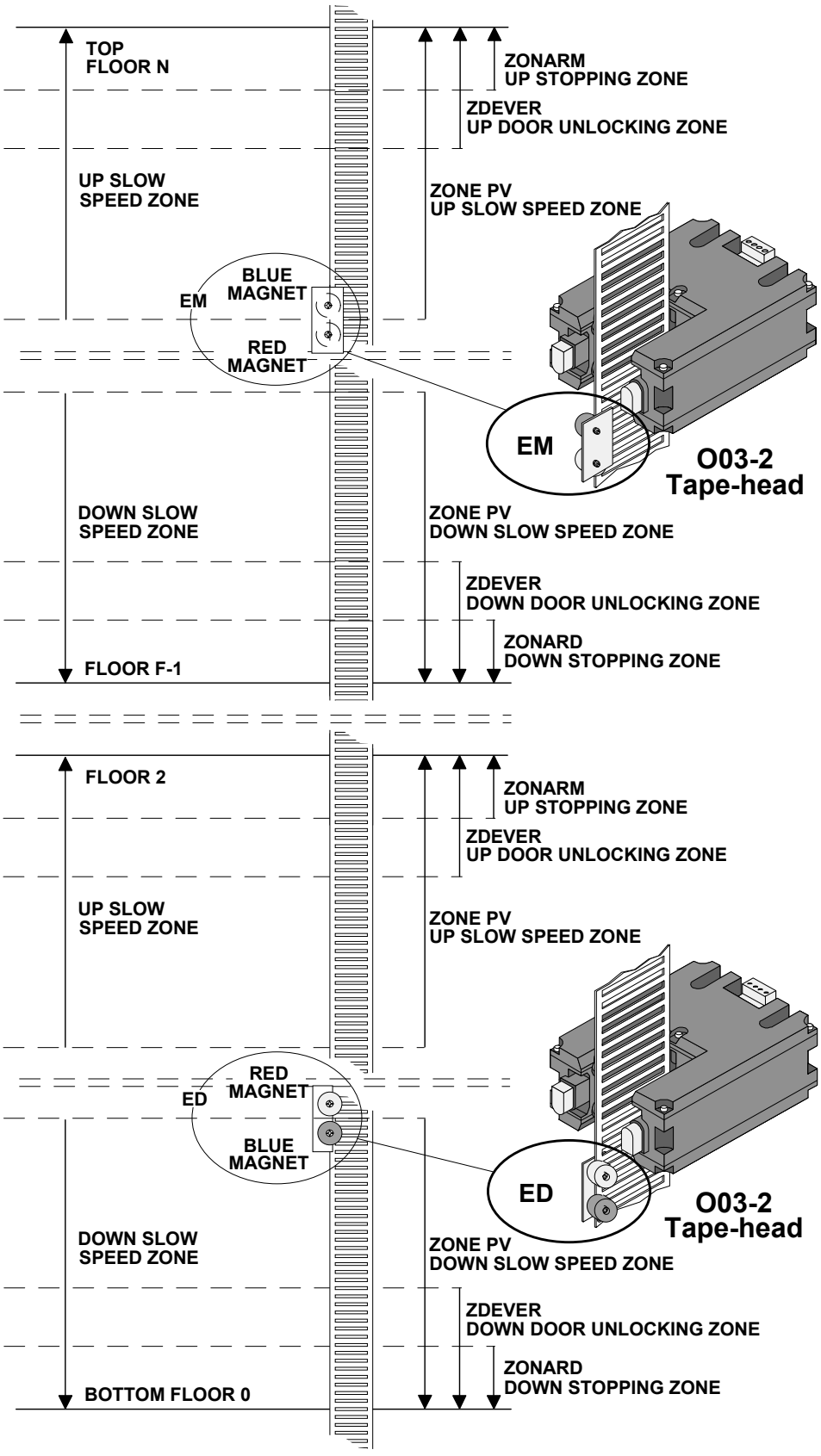
Position the **EM** magnet at the slow-down point for the top floor, this may be useful if the lift does not cross the bottom magnets very often.

To carry out this operation, you will need the following elements:

- An **O03-2** tape-head.
- An **N70** interface board for an O03-2 tape-head.
- A **pair of magnets** to position as shown on page 11.

1) During normal operation, when the lift stops exactly at the desired floor, send the lift up to the top floor and position the **EM** magnets to obtain the desired slow-down distance (the position of the **EM** magnets is roughly the same as that of the **ED** magnets).
2) If afterwards when coming back to the top floor, the lift does not stop at floor level, move the **EM** magnets to the value corresponding to the reset heigt.

POSITIONING THE EM MAGNETS ON THE SLOTTED TAPE (O03-2 TAPE HEAD) (3/3)



PARAMETERS TO BE ADJUSTED ON SITE AND CONVERSION TABLE

Reminder of parameters to be checked and improved on site.

- **Door 1 timer:** Address **41** for door **1** (From 2 to 255 seconds).
- **Reopen timer:** Address **42** for door **1** (From 1 to 255 seconds).
- **Door 2 timer:** Address **61** for door **2** (From 2 to 255 seconds).
- **Reopen timer:** Address **62** for door **2** (From 1 to 255 seconds).

These parameters are programmed in seconds and in hexadecimal, for conversion see the table below.

Conversion table Hexadecimal ⇔ Decimal

Right hand figure

Left hand figure	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
B	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Using the table:

To convert a hexadecimal number to a decimal number, find the left hand hexadecimal digit in the left hand column of the table. Follow along the line until it intersects with the right hand digit to be found in the top row of the table. This value is the decimal equivalent of the hexadecimal number required.

Example: to convert the hexadecimal number **A4** into decimal, follow the row **A** in the left hand column until it intersects with the column **4** in the top row. This is the decimal equivalent of **A4**, i.e. **164**.

To convert a decimal number to a hexadecimal number, find the decimal number in the table. The first figure of the hexadecimal number is the digit shown in the left hand column of that line, and the second digit is the digit shown at the top of that column.

Example: to find the hexadecimal equivalent of **206**, find that value in the table. The hexadecimal equivalent is **CE**.

Hexadecimal addition table

Result in hex

	0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***A***	***B***	***C***	***D***	***E***	***F***
0	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	10
2	2	3	4	5	6	7	8	9	A	B	C	D	E	F	10	11
3	3	4	5	6	7	8	9	A	B	C	D	E	F	10	11	12
4	4	5	6	7	8	9	A	B	C	D	E	F	10	11	12	13
5	5	6	7	8	9	A	B	C	D	E	F	10	11	12	13	14
6	6	7	8	9	A	B	C	D	E	F	10	11	12	13	14	15
7	7	8	9	A	B	C	D	E	F	10	11	12	13	14	15	16
8	8	9	A	B	C	D	E	F	10	11	12	13	14	15	16	17
9	9	A	B	C	D	E	F	10	11	12	13	14	15	16	17	18
A	A	B	C	D	E	F	10	11	12	13	14	15	16	17	18	19
B	B	C	D	E	F	10	11	12	13	14	15	16	17	18	19	1A
C	C	D	E	F	10	11	12	13	14	15	16	17	18	19	1A	1B
D	D	E	F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C
E	E	F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D
F	F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E

Result in decimal

	0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***A***	***B***	***C***	***D***	***E***	***F***
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
4	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
5	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
B	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
C	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
D	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
E	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
F	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Using the table:

To add 2 hexadecimal figures, locate one of these figures in the left-hand column. Follow the corresponding row along to the right until the intersection with the column of the upper part where the second figure is found. The value at the intersection is the desired sum.

For example, to add the hex numbers **A** and **4**, find the intersection of the row which contains A in the first column, with the column that contains 4 in the upper part. The sum of A and 4 is the value at the intersection, i.e. **E**.

If you have to add 2 figure hex numbers, proceed figure by figure from right to left, and do not forget the equivalent remainders. For example, to add the hex numbers1A and B2, add A to C (result: 16 in hex), which thus gives a remainder of to 1, then add 1 and B (result equal to C), to which add the remainder 1 to get the final result of **D6**.

The upper table gives the result in hex, the lower table gives the result in decimal.

Hexadecimal multiplication table

Result in hex

	0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***A***	***B***	***C***	***D***	***E***	***F***
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
2	0	2	4	6	8	A	C	E	10	12	14	16	18	1A	1C	1E
3	0	3	6	9	C	F	12	15	18	1B	1E	21	24	27	2A	2D
4	0	4	8	C	10	14	18	1C	20	24	28	2C	30	34	38	3C
5	0	5	A	F	14	19	1E	23	28	2D	32	37	3C	41	46	4B
6	0	6	C	12	18	1E	24	2A	30	36	3C	42	48	4E	54	5A
7	0	7	E	15	1C	23	2A	31	38	3F	46	4D	54	5B	62	69
8	0	8	10	18	20	28	30	38	40	48	50	58	60	68	70	78
9	0	9	12	1B	24	2D	36	3F	48	51	5A	63	6C	75	7E	87
A	0	A	14	1E	28	32	3C	46	50	5A	64	6E	78	82	8C	96
B	0	B	16	21	2C	37	42	4D	58	63	6E	79	84	8F	9A	A5
C	0	C	18	24	30	3C	48	54	60	6C	78	84	90	9C	A8	B4
D	0	D	1A	27	34	41	4E	5B	68	75	82	8F	9C	A9	B6	C3
E	0	E	1C	2A	38	46	54	62	70	7E	8C	9A	A8	B6	C4	D2
F	0	F	1E	2D	3C	4B	5A	69	78	87	96	A5	B4	C3	D2	E1

Result in decimal

	0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***A***	***B***	***C***	***D***	***E***	***F***
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
3	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
4	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
6	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
7	0	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
8	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
9	0	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135
A	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
B	0	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165
C	0	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
D	0	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195
E	0	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210
F	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225

Using the table:

To multiply 2 hex figures, locate one of these figures in the left-hand column of the table. Follow the corresponding row along to the right until the intersection with the column at the upper part to that where the second figure is located. The value at the intersection is the product sought.
The upper table gives the result in hex, the lower table in decimal.
For example, the product of the hex number **A** and **6** is **3C** hex and **60** decimal.

Conversion table for segment displays

Hexadecimal	Decimal		*Hexadecimal*	Decimal
0	0		*0*	0
10	16		*1*	1
20	32		*2*	2
30	48		*3*	3
40	64		*4*	4
50	80		*5*	5
60	96		*6*	6
70	112		*7*	7
80	128	+	*8*	8
90	144		*9*	9
A0	160		*A*	10
B0	176		*B*	11
C0	192		*C*	12
D0	208		*D*	13
E0	224		*E*	14
F0	240		*F*	15

To get the equivalent **decimal** value for a segment configuration, pick out from the table the equivalent value to the upper segments and add to it the equivalent lower segments. For example :

= +

= 176 + 6 = 182

AUTINOR

List of

- PARAMETERS
- INPUTS
- OUTPUTS
- FAULT CODES

in VECTOR DRIVE

WARNING

This manual is deemed correct on going to press. It is linked to the program version shown on the front page, however this version may evolve without influencing the contents of this manual, which may in itself be changed without prior warning.

The information contained has been scrupulously checked. However ***AUTINOR*** declines all responsibility for error or omission.

Should you notice any discrepancy or unclear description, or if you have any suggestions, we would appreciate your written comments (by mail or fax) to :

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CONTENTS

EXPLANATION OF PARAMETERS (1/7).

• Address **000** : **V0**, V0.

At this address is programmed V0 which can also be used as a relevelling speed.

Units :	metres per second (m/s)		
Mini :	0,001 m/s	**Maxi :**	0,199 m/s
Factory value :	1/10 of V2		

• Address **001** : **ISO**, Relevelling speed.

At this address is programmed the relevelling speed.

Unit :	metres per second (m/s)		
Mini :	0,000 m/s	**Maxi :**	< V0
Factory value :	0,020 m/s		

• Address **002** : **INS**, Inspection speed.

At this address is programmed the Inspection speed which can also be used as an intermediate speed if V1 is not used.
This speed is taken into account when the inspection input (INS/ on K30) is activated (VINS Led lit).

Unit :	metres per second (m/s)		
Mini :	0,20 m/s	**Maxi :**	0,60 m/s
Factory value :	0,50 m/s		

• Address **003** : **V1**, Intermediate speed V1.

At this address is programmed the Intermediate speed V1.

Unit :	metres per second (m/s)		
Mini :	0,61 m/s	**Maxi :**	< V2
Factory value :	0,61 m/s		

EXPLANATION OF PARAMETERS (2/7).

• Address **004** : **V2**, Full speed V2.

At this address is programmed the Full speed.

Unit :	metres per second (m/s)		
Mini :	> V1	**Maxi :**	04,00 m/s
Factory value :	Clients specification		

• Address **006** : **VSy**, Synchronous speed.

At this address is programmed the movement speed of the car when the motor turns at its synchronous speed.

- 1500 t/min for a 4 pole motor
- 1000 t/min for a 6 pole motor

Unit :	metres per second (m/s)		
Mini :	0,000 m/s	**Maxi :**	9,999 m/s
Factory value :	Clients specification		

Formula :

Calculation of the synchronous speed for a 1500 t/min motor : $VSy = \frac{\frac{1500}{60} \times \pi d}{\text{Reductor ration x roping}}$

π = 3,14 - d = diameter of the pulley - Roping = 1 or 2 or 4

• Address **008** : **DV2**, Slow-down distance on V2.

At this address is programmed the slow-down distance necessary when in full speed V2.

Unit :	metre (m)		
Mini :	0,000 m	**Maxi :**	9,999 m
Factory value :	Clients specification		

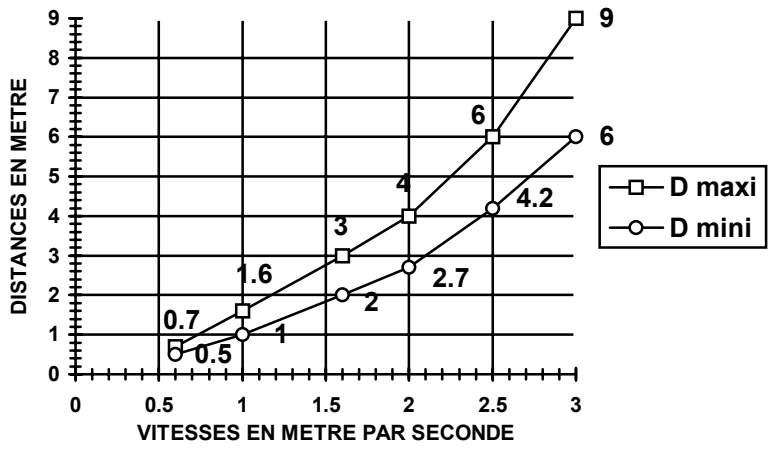


Figure 3
Slow-down distance value (DV2) in fact of the full speed (V2)

EXPLANATION OF PARAMETERS (3/7).

• Address **00A** : **Acce**, Acceleration.

At this address is programmed the time to reach V2 speed.

Unit :	second (s)		
Mini :	02,0 s	**Maxi :**	25,5 s
Factory value :	03,0 s		

• Address **00B** : **FrArr**, Brake time on stopping.

At this address is programmed the time to stabilise the rotor before the brake is dropped.

Unit :	second (s)		
Mini :	0,30 s	**Maxi :**	0,80 s
Factory value :	0,5 s		

• Address **00C** : **FrDem**, Brake time on start-up.

At this address is programmed the time during which the rotor is stabilised to allow the brake to lift correctly before start-up.

Unit :	second (s)		
Mini :	0,00 s	**Maxi :**	0,60 s
Factory value :	0,5 s		

• Address **00D** : **Thermi**, Motor thermistor.

At this address is programmed the current at which the electronic thermical relay is activated. (since programme V02)

Unit :	Ampere (A)		
Mini :	..... A	**Maxi :**	..... A
Factory value :	Clients specification		

The thermal relay switches switch off if the motor intensity (Imot) is higher than the thermal intensity (Ith) for longer than 3,5 seconds or if the motor intensity (Imot) is 1,5 A higher than the termal intensity (Ith).
Imot can be seen at the address **108**, page **33**.

EXPLANATION OF PARAMETERS (4/7).

- Address **00E** : **Opt**, Option.

Segment **7** : **ML220V**, MLIft 220V. — 00E Opt **10000000**

Segment 7 is programmed ON when the Vector drive is on a **three phase 220V network**.

Segment 7 is programmed OFF when the Vector drive is on a **three phase 400V network**.

Segment **6** : **D65°**, Fault T°>65°. — 00E Opt **01000000**

Segment 6 is programmed ON to increase the radiator temperature detection threshold from 60°C to **65°C**.

Segment 6 is programmed OFF to keep the detection threshold at 60°C.

Segment **5** : **APPDIR**, Direct Approach. — 00E Opt **00100000**

Segment 5 is programmed ON to remove V0 so that the car can level with direct approach.

Segment 5 is programmed OFF if this is not desired.

Segment **4** : **RETSEC**, Delay on safety contactor. — 00E Opt **00010000**

Segment 4 is programmed ON to filter the rebound of the S contactor contacts on start-up, and when these contacts are used to cut the motor power supply.

Segment 4 is programmed OFF when the S contacts are not used to control the motor.

Segment **3** : **MLI**, V.F. + « NON AUTINOR » Controller. — 00E Opt **00001000**

Segment 3 is programmed ON when the B32 is associated to an other controller than AUTINOR.

Segment 3 is programmed OFF when the B32 is associated to an AUTINOR controller using the slotted tape.

Segment **2** : **BATERI**, Battery. — 00E Opt **00000100**

Option available later in 1999

Segment 2 is programmed ON to activate the emergency return to floor level using battery power supply. This option requires an extra, emergency power supply.

Segment **1** : **NOBAND**, No slotted tape. — 00E Opt **00000010**

Segment 1 is programmed ON when there is no tape or O03 tape-head. In this case, a high speed tachometer is required.

Segment 1 is programmed OFF when the speed information cames from the slotted tape and O03 tape-head.

EXPLANATION OF PARAMETERS (5/7).

Segment **0** : **IG**, Integrator.

00E Opt **00000001**

Segment 0 is programmed ON when the B32 slip integrator is to be activated.

Segment 0 is programmed OFF if this is not desired .

- Address **010** : **Modele**, B32 Model.

At this address is programmed the B32 model number. See the sticker on the Plexiglas or on the current measuring device label (VEC02M).

Unit :	None		
Mini :	2	**Maxi :**	9
Factory value :	Clients specification		

- Address **012** : **IFlux**, Maximum flux current.

At this address is programmed the maximum flux current. Normally, this current is measured with no load at 1500 tr/mn. This measurement is rarely possible on site, so the « empirical » method is to program the number of horsepower as found on the motor plaque.

Example :

If the motor plaque says **12 HP** ⇒ Program **12,0**
If the motor plaque says **12 kW**, transform into HP, 12 / 0,736 = **16,3** ⇒ program **16,3**

Unit :	Ampere (a)		
Mini :	000,1 A	**Maxi :**	999,9 a
Factory value :	Clients specification		

- Address **014** : **IFmin**, minimum flux current.

At this address is programmed the minimum flux current, which is approximately one half of the maximum flux current (see address 012). This parameter decreases the motor vibrations at low frequency.

Unit :	Ampere (a)		
Mini :	000,1 A	**Maxi :**	999,9 a
Factory value :	IFlux / 2 = (A)		

EXPLANATION OF PARAMETERS (6/7).

• Address **016** : **Gliss**, Motor Slip.

At this address is programmed the motor slip.

Example of the slip calculation :

For a 4 pole motor, 50 Hz, which without slip would turn at 1500 rpm, yet the motor plaque states 1380 rpm,

the slip will be $\frac{1500 - 1380}{1500} = 0{,}08$ ie 8% $\Rightarrow$ Program 08,0 %

Unit :	percent (%)		
Mini :	02,0 %	**Maxi :**	20,0 %
Factory value :	$\frac{1500 - 1380}{1500} = 0{,}08$ soit 8%		

If the RPM is not shown, use the table below once you have calculated the **Id** / **In** ratio (starting current / nominal current)

$\frac{Id}{In}$	**Gliss Ad 016**
2,5	10 %
3,5	8 %
4	5 %
5	3 %

• Address **024** : **NCode**, Number of encoder impulses.

At this address is programmed the number of incremental encoder impulses.

Unit :	None		
Mini :	500	**Maxi :**	2500
Factory value :	500 (500 < x < 2500)		

• Address **026** : **NPole**, Number of motor pole.

At this address is programmed the number of motor pole.

Unit :	None		
Mini :	004	**Maxi :**	006
Factory value :	4 or 6 poles, if 6 poles, Ncode = 750 min		

EXPLANATION OF PARAMETERS (7/7).

- Address **027** : **Country**, Language.

At this address can be programmed the language to be used on the VEC03 programming tool.

Possible choice : France, English, Deutsch *, Español

* In Germany, the Inspection speed can go up to 0,80 m/s and the levelling speed up to 0,50 m/s.

- Address **034** : **Dem**, Number of starts. . **=> 0 0 0 0 x x x x**

At this address, can be read the number of starts carried out by the lift and the 4 strong weight bits can be modified.

- Address **036** : **Dem**, Number of starts. **=> x x x x 0 0 0 0**

At this address, can be read the number of starts carried out by the lift and the 4 light weight bits can be modified.

- Address **041** : **Test**, Transistor test.

At this address, can be written 55 to check the transistors.

All of the LEDs turn red if all of the transistors are working properly.

- Address **042** : **Prog**, Type of Programme.

At this address, the selected programme can be read.

VEC (VECtoriel) Vector, **SCA** (SCAlaire), **ARB** (ARBre lent) Gear Less.

- Address **043** : **TMan**, Type of Controller.

At this address, the type of controller associated with the B32 can be read.

Normal (AUTINOR Controller or with a VEC06 interface board),
1Vit (1 speed controller), **2Vit** (2 speed controller)

- Address **044** : **Mcode**, Memorisation of a personal code number.

At this address can be memorised a personal code number to program against all chance intervention. The equipment set with the factory code **0000** allowing complete and permanent access to the set of settings.

After programming your code (Don't forget to take note of it), the address **044** disappears. If you want to modify the settings, enter your Code at the address **046**.

- Address **046** : **Code**, Access Code.

At this address, enter your Code to unlock the address **044** in order to modify the setting and/or change the memorised code.

EXPLANATION OF INPUTS (1/2)

- Address **100** : **En1**, Inputs 0 to 7.

Segment **7** : NOT USED. — 100 En1 **10000000**

Segment **6** : **V2**, Speed V2. (Full speed) — 100 En1 **01000000**

Indicates the State of the input for speed **V2**.
Segment **6 lights up** when the lift is required to move at speed **V2**.
Segment **6** is not lit otherwise.

Segment **5** : **V1**, Speed V1. (Intermediate speed) — 100 En1 **00100000**

Indicates the State of the input for speed **V1**.
Segment **5 lights up** when the lift is required to move at speed **V1**.
Segment **5** is not lit otherwise.

Segment **4** : **V0**, Speed V0. — 100 En1 **00010000**

Indicates the State of the input for speed **V0**.
Segment **4 lights up** when the lift is required to move at speed **V0**.
Segment **4** is not lit otherwise.

Segment **3** : **INS**, Inspection speed. — 100 En1 **00001000**

Indicates the State of the **inspection** input.
Segment **3 lights up** when the lift is required to **move on inspection**.
Segment **3** is not lit otherwise.

Segment **2** : **VISO**, Relevelling speed. — 100 En1 **00000100**

Indicates the State of the **relevelling** input. (VISO+ & VISO-)
Segment **2 lights up** when the lift is required to **relevel**.
Segment **2** is not lit otherwise.

Segment **1** : **DE**, Down. — 100 En1 **00000010**

Indicates the State of the **Down** input.
Segment **1 lights up** when the lift is required to **go down**.
Segment **1** is not lit otherwise.

EXPLANATION OF INPUTS (2/2)

Segment **0** : **MO**, Up. — 100 En1 **00000001**

Indicates the State of the **Up** input.
Segment **0 lights up** when the lift is required to **go up**.
Segment **0** is not lit otherwise.

- Address **102** : **En2**, Inputs 0 to 7.

Segment **7** : NOT USED. — 102 En2 **10000000**

Segment **6** : NOT USED. — 102 En2 **01000000**

Segment **5** : **CCL**, L Contactor Check. — 102 En2 **00100000**

Indicates the State of the **Line** Contactor.
Segment **5 lights up** when the **Line** contactor is **de-energised**.
Segment **5** it is not lit when the **Line** contactor is **energised**.

Segment **4** : **CCS**, S Contactor Check. — 102 En2 **00010000**

Indicates the State of the **Safety** Contactor.
Segment **4 lights up** when the **Safety** contactor is **de-energised**.
Segment **4** it is not lit when the **Safety** contactor is **energised**.

Segment **3** : NOT USED. — 102 En2 **00001000**

Segment **2** : NOT USED. — 102 En2 **00000100**

Segment **1** : **CAA**, Tape-head O03 - Beam **A**. — 102 En2 **00000010**

Indicates the State of the Beam **A** (Top Beam) on the O03 tape-head.
Segment **1 lights up** when the Beam **A** is **cut**.
Segment **1** is not lit otherwise.

Segment **0** : **CAB**, Tape-head O03 - Beam **B**. — 102 En2 **00000001**

Indicates the State of the Beam **B** (Bottom Beam) on the O03 tape-head.
Segment **0 lights up** when the Beam **B** is **cut**.
Segment **0** is not lit otherwise.

EXPLANATION OF OUTPUTS

- Address **101** : **Sor**, Outputs 0 to 7.

Segment **7** : **RISO**, Re-levelling Fault Relay. — 101 Sor **10000000**

Indicates the State of the **re-levelling fault relay** output (**RISO** on **VEC06** board or controller input).
Segment **7 lights up** when the re-levelling fault relay output is activated.
Segment **7** is not lit otherwise.

Segment **6** : **FR**, Brake relay. — 101 Sor **01000000**

Indicates the State of the **Brake relay** output (BR).
Segment **6 lights up** when the brake relay output is activated.
Segment **6** is not lit otherwise.

Segment **5** : **DFP**, Fault Relay (Temporary). — 101 Sor **00100000**

Indicates the State of the **Fault relay** output (**DEF** on **VEC06** board or controller input).
Segment **5 lights up** when the fault relay output is activated.
Segment **5** is not lit otherwise.

Segment **4** : **DFI**, Fault Relay (Definitive). — 101 Sor **00010000**

Indicates the State of the **Fault relay** output (**DEF** on **VEC06** board or controller input).
Segment **4 lights up** when the fault relay output is activated.
Segment **4** is not lit otherwise.

Segment **3** : **STOPR**, Stop VVVF. — 101 Sor **00001000**

Indicates the State of the **Frequency Drive**.
Segment **3 lights up** when the Frequency drive is OFF.
Segment **4** is not lit otherwise.

Segment **2** : **VENT**, Fan relay. — 101 Sor **00000100**

Indicates the State of the **Fan relay** output. (VENT).
Segment **2 lights up** when the fan relay output is activated.
Segment **2** is not lit otherwise.

Segment **1** : **S**, Safety relay. — 101 Sor **00000010**

Indicates the State of the **Safety relay** output (S).
Segment **1 lights up** when the safety relay output is activated.
Segment **1** is not lit otherwise.

Segment **0** : **L**, Line relay. — 101 Sor **00000001**

Indicates the State of the **Line relay** output (L).
Segment **0 lights up** when the line relay output is activated.
Segment **0** is not lit otherwise.

EXPLANATION OF VARIABLES (1/2)

- Address **103** : **T°**, Radiator Temperature in degrees Celsius (°)

At this address can be read the power transistors cooling radiator temperature.

- Address **104** : **TCont**, Capacitor Current in Volts (V)

At this address can be read the D.C. net capacitor terminal current.

- Address **108** : **Imot**, Motor Current in Amps (A)

At this address can be read the current in each phase of the motor.

- Address **10A** : **DV0**, V0 stopping distance in metres (m)

At this address can be read the distance necessary to smooth V0 into zero speed.

- Address **10B** : **Diso**, Relevelling stopping distance in metres (m)

At this address can be read the distance necessary to smooth VISO into zero speed.

- Address **10C** : **DIns**, Inspection slow-down distance in metres (m)

At this address can be read the slow-down distance associated with the inspection speed VINS.

- Address **10E** : **DV1**, V1 slow-down distance in metres (m)

At this address can be read the slow-down distance associated with the intermediate speed V1.

- Address **110** : **Fre**, Frequency sent to the motor in Hertz (Hz)

At this address can be read the instantaneous frequency applied to the motor.

- Address **112** : **Con**, reference in Hertz (Hz)

At this address can be read the reference/Ideal frequency to be followed.

EXPLANATION OF VARIABLES (2/2)

- Address **114** : **Vt**, Lift speed in metres per second (m/s)

At this address can be read the car speed.

- Address **116** : **Codeur**, Incremental encoder no Unit

At this address can be read the counting of the incremental encoder mounted on the motor.

- Address **118** : **Recup**, Energy regeneration in percent (%)

At this address can be read the percentage of energy consumed in the ***x*** regenerative resistors. (***x*** = number of regenerative resistors depending of the drive model)

- Address **11A** : **Tmot**, motor power supply current in percent (%)

At this address can be read the power current applied to the motor.

- Address **120** : **GD**, Deceleration Gradient in V2 speed in metre per second squared (m/s²)

At this address can be read the deceleration slope associated with the different speed.

- Address **122** : **DRal**, Slow-down distance in metre (m)

At this address can be read the slow-down distance still to run.

- Address **12A** : **I Cap1**, Current measuring device 1 no Unit

At this address can be read the information given by the current measuring device 1

Note : At Stop the information should be between 500 and 524.

- Address **12C** : **I Cap2**, Current measuring device 2 no Unit

At this address can be read the information given by the current measuring device 2.

Note : At Stop the information should be between 500 and 524.

- Address **12E** : **I Cap3**, Current measuring device 3 no Unit

At this address can be read the information given by the current measuring device 3.

Note : At Stop the information should be between 500 and 524.

LIST OF VECTOR PARAMETERS AND FINAL VALUES

Address	Name	Designation	Min values	Max values	Factory values	Finals Values	Page
000	V0	Set-up speed	0,001	0,199	1/10 de V2		23
001	Iso	Re-levelling speed	0,000	< V0	0,020 m/s		23
002	Ins	Inspection speed	0,20	0,60	0,50 m/s		23
003	V1	Intermediary speed	0,61	< V2	0,61 m/s		23
004	V2	Full speed	> V1	03,00	*Clients specification* (m/s)		24
006	VSy	Synchronous speed	0,000	9,999	*Clients specification* (m/s)		24
008	DV2	V2 Slow down distance	0,000	9,999	*Clients specification* (m)		24
00A	Acce	Acceleration	02,0	25,5	3,0 s		25
00B	FrArr	Brake stopping time	0,30	0,80	0,5 s		25
00C	FrDem	Brake starting time	0,00	0,60	0,5 s		25
00D	Thermi	Motor thermistor (A)			*Clients specification* (A)		25
00E	Opt	Hardware option			*Clients specification* (m/s)		26
00F	RgT°	Temperature Sonde Calibration	0	10	4 °C		
010	Model	Vector model	2	9	*Clients specification*		27
011	Tmor	Transistor pause time			1,5 µs		
012	IFlux	Flux current max	000,1	999,9	Number of horse power (A)		27
014	IFmin	Flux current min	000,1	999,9	IFlux / 2 = (A)		27
016	Gliss	Motor slip	02,0	20,0	$\frac{1500 - RPM}{1500} \times 100 = \%$		28
017	ETFDM0	Up starting brake time difference	0,00	2,55	0,00 s		
018	Jreg	Inertia			005 %		
019	GP max	Max Proportional Gain > 12 Hz			015		
01A	GP min	Min Proportional Gain < 12 Hz			004		
01B	GI max	Max integral Gain			010		
01C	GI min	Min integral Gain			001		
01D	AFLuD	Additional starting Flux			00,0 A		
01E	GI Dep	Start up integral Gain			005		
01F	GP Dep	Start up Proportional Gain			005		
020	T Dema	Start up Voltage			006 %		
021	G Stabi	Stabilisation Gain			015		
022	FTmax	Max Voltage Frequency			050 Hz		
023	FMinD	Min Starting Frequency			0,10 Hz		
024	NCode	N° Encoder Teeth	0500	2500	500 (500 < x < 2500)		28
026	NPole	N° of motor Poles	004	006	4 or 6 poles (if 6 poles, NCode=750mini)		28
027	Country	Country Language			F, GB, D, SP		29

*** <u>Opt parameter Detail - OPTion - Address 00E :</u>**  ⇨ page 26.

Address	Name	Seg 7	Seg 6	Seg 5	Seg 4	Seg 3	Seg 2	Seg 1	Seg 0
00E	Opt	ML220V	D65°	APPDIR	RETSEC	MLI	BATERI	NOBAND	IG
FACTORY VALUE		0	0	0	0	0 or 1	0	1	0
FINAL VALUE									

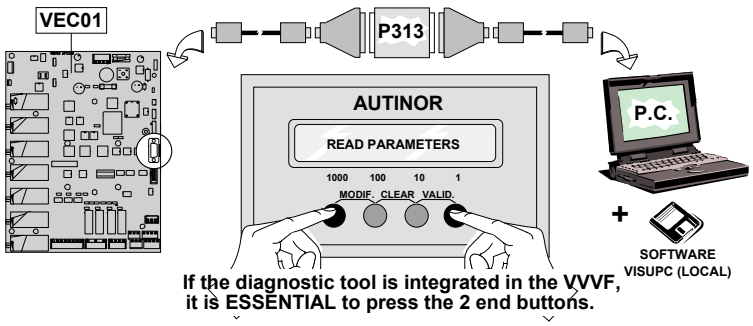
LIST OF VECTOR PARAMETERS AND FINAL VALUES

Address	Name	Designation	Min Values	Max Values	Factory Values		Finals Values	Page
028	PileDef	Fault 1						
029	PileDef	Fault 2						
02A	PileDef	Fault 3						
02B	PileDef	Fault 4						
02C	PileDef	Fault 5						
02D	PileDef	Fault 6						
02E	PileDef	Fault 7						
02F	PileDef	Fault 8						
030	PileDef	Fault 9						
031	PileDef	Fault 10						
034	Dem	Number of starts (Full load)	0000	9999	0000xxxx			29
036	Dem	Number of starts (Empty)	0000	9999	xxxx0000			29
038	Visu1 *	**VISU** n° **1** Address			PROGRAMMATION	F912		
039	Visu2 *	**VISU** n° **2** Address			OF THE CURVES	F910		
03A	Visu3 *	**VISU** n° **3** Address			VISUALISED	F904		
03B	Visu4 *	**VISU** n° **4** Address			ON COMPUTER	F908		
040	HinTen	Disable of voltage control			00			
041	Test	Transistor Test (Program 55 for test)			00			29
042	**Prog**	**Programme Type**			**VEC, SCA, ARB**			29
043	TMan	Controller Type			Normal, 1 speed, 2 speed			29
044	Mcode	Code no memory			0000			29
046	Code	Code no entry			0000			29

* You can visualise the parameters, inputs/outputs, variables as well as the function graphs on a P.C., using the P313 interface board and the VISU P.C. programme.

To do this, connect the P313 set and push the 2 end buttons of the integrated diagnostic tool VEC03. In order to make « **READ PARAMETERS** » appear on the display.

At the end on the P.C. visualisation, push the 2 end buttons.



<u>You can visualise :</u>

- The theoretical graph : F912
- The real graph : F910
- The capacitor voltage : F904
- The efficient motor current : F908

LIST OF VECTOR INPUTS/OUTPUTS

Address	Name	Seg 7	Seg 6	Seg 5	Seg 4	Seg 3	Seg 2	Seg 1	Seg 0	Page
		Inputs 1								
100	**En1**		V2	V1	V0	INS	VISO	DE	MO	30
		Outputs								
101	**Sor**	RISO	BR	DFP	DFI	STOPR	VENT	S	L	32
		Inputs 2								
102	**En2**			CCL	CCS			CAA	CAB	31
103	**T°**	Radiator **T**emperature (°C)								33
104	**TCond**	Capacitor voltage (v)								33
108	**Imot**	Motor Intensity (A)								33
10A	**DV0**	V0 Stopping distance (m)								33
10B	**Diso**	ISO Relevelling Stopping distance (m)								33
10C	**DIns**	Slow down distance in inspection speed (m)								33
10E	**DV1**	Slow down distance in speed V1 (m)								33
110	**Fre**	Frequency serf by the motor (Hz)								33
112	**Con**	Theoretical / reference (Hz)								33
114	**Vt**	Lift Speed (m/s)								34
116	**Codeur**	Incremental encoder								34
118	**Recup**	Energy recovery (%)								34
11A	**TMot**	Motor power voltage (%)								34
120	**GD**	V2 Speed slow down gradient (m/s²)								34
122	**DRal**	Slow down distance (m)								34
12A	**I Cap1**	Intensity measurement device **1** *(VEC12)*								34
12C	**I Cap2**	Intensity measurement device **2** *(If VEC02M)*								34
12E	**I Cap3**	Intensity measurement device **3** *(VEC12)*								34

LIST OF VECTOR FAULT CODES

FAULTS DISPLAYED BY THE VECTOR DRIVE (VEC01 Board)

The **B32** fault code stack is found at Address **28**, **29**, **2A**, **2B**, **2B**, **2C**, **2D**, **2E**, **2F**, **30** and **31**. At Address **28** the most recent fault and at Address **31** the oldest recorded fault.

BEFORE LEAVING THE SITE, SET THE FAULT LIST BACK TO 00.
IN THIS WAY YOU CAN KEEP BETTER TRACK OF ANY BREAKDOWNS.

FAULT N°	DESIGNATION	VISUALISATION
-00-	FUNCTIONING CORRECTLY.	No fault
-10-	INVERSION IN THE ROTATION DIRECTION (DETECTED BY THE TAPE HEAD)	Phase inversion
-11-	CONSEQUENCE OF A AND B SIGNALS CHANGING STATE AT THE SAME TIME	Tape head fault
-22-	SLIP INTEGRATOR.	Integrator
-52-	« 10 » CUT WHILE IN MOTION.	10 cut while in motion
-62-	FAULT WITH THE O03 TAPE HEAD.	Tape head counting irrational
-77-	**"S"** CONTACTOR NOT DROPPED.	Contactor not realising
-78-	**"S"** CONTACTOR NOT ENERGISED	Not programmed
-80-	POWER SUPPLY CAPACITOR (tc) MISSING AT START-UP.	Current < 450 v at start-up
-81-	AVERAGE CURRENT HIGHER THAN ALLOWED CURRENT.	Thermistor
-82-	REAL SPEED 15% HIGHER THAN PROGRAMMED NOMINAL SPEED Vn.	Speed > 115% of the nominal speed
-83-	INSPECTION SPEED EXCEEDS 0,6 M/S.	Inspection speed > 0.6 m/s
-84-	RELEVELLING SPEED EXCEEDS 0,3 M/S.	Relevelling speed > 0.3 m/s
-85-	REGENERATIVE POWER EXCEEDS 650V (BRAKE CIRCUIT FAULT)	Regeneration
-86-	MISSING POWER SUPPLY DURING MOVEMENT COMMAND (FUSE BLOWN OR CONTACTOR NOT ENERGISED.	No power while in motion
-87-	"LINE" CONTACTOR NOT DROPPED.	Contactor not realising
-88-	SIMULTANEOUS « UP » AND « DOWN » COMMAND.	Simultaneous up and down
-89-	RADIATOR TEMPERATURE EXCEEDS 40 °.	Radiator T°
-90-	AC CURRENT EXCEEDS MAX TRANSISTOR CURRENT.	Power supply too high
-91-	TRANSISTOR N°1 FAULT. (TOP)	Transistor N°1 (Top)
-92-	TRANSISTOR N°2 FAULT.	Transistor N°2
-93-	TRANSISTOR N°3 FAULT.	Transistor N°3
-94-	TRANSISTOR N°4 FAULT.	Transistor N°4
-95-	TRANSISTOR N°5 FAULT.	Transistor N°5
-96-	TRANSISTOR N°6 FAULT. (BOTTOM)	Transistor N°6 (Bottom)
-97-	REGENERATIVE TRANSISTOR FAULT.	Regenerative Transistor fault
-98-	PARAMETER FAULT	Parameter fault
-99-	EEROM WRITING FAULT.	Eerom writing fault
-100-	MOTOR INTENSITY > MAXI INTENSITY.	Motor intensity > Max
-101-	INCREMENTAL ENCODER FAULT.	Encoder fault
-102-	INCREMENTAL ENCODER SPEED +/- 15% FAULT.	Encoder speed +/- 15% Advised
-103-	DIRECT APPROACH FAULT.	MLIFT stop on V0 movement
-104-	CURRENT MEASURING DEVICE NOT CONNECTED	Not programmed
-AUTRE-	NON PROGRAMMED FAULT.	Not programmed

WARNING :
PLEASE TAKE PRECAUTIONS WHEN YOU SEND US YOUR ELECTRONIC BOARDS (USE ANTI-STATIC BAGS)

AUTINOR

List of

- PARAMETERS
- INPUTS
- OUTPUTS
- FAULT CODES

in Series 32

WARNING

This manual is deemed correct on going to press. It is linked to the program version shown on the front page, however this version may evolve without influencing the contents of this manual, which may in itself be changed without prior warning.

The information contained has been scrupulously checked. However ***AUTINOR*** declines all responsibility for error or omission.

Should you notice any discrepancy or unclear description, or if you have any suggestions, we would appreciate your written comments (by mail or fax) to:

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CONTENTS

PARAMETER DEFINITIONS

To read and modify the parameters, it is necessary to put the little switch on the left to the down position, called **PAR**.

Before the word **ADDRESS**, the little **PAR** switch must be down, and **RAM** must be up. Now we can define the contents of the parameters. It is then necessary to put the little switch down.

The small dot at the bottom to the right of the display is now lit.

• Par Address **00**: **CDDEF** (Last Fault Code).

Best displayed in hexadecimal mode.
At this address, the Series 32 displays the code of the last fault.

• Par Address **01**: **CADDEF** (Last but-one-fault code).

Best displayed in hexadecimal mode.
At this address, the Series 32 displays the last-but-one fault code.

• Par Address **02**: Best displayed in segment mode.

Best displayed in hexadecimal mode.
At this address, the Series 32 displays the last-but-one fault code.

See the addresses **5D** and **63** to change the values.

The segments of address **N°2** cannot be changed directly!!!

Segment **7**: **REGUL** (Control System).

We program segment 7 to " 1 " if the Series 32 is to drive an independent speed control system.
We program segment 7 to " 0 " in the reverse case.

Segment **6**: **DPLX** (DuPLeX).

We program segment 6 to " 1 " if the Series 32 is to be switched into a MULTIPLEX battery.
We program segment 6 to " 0 " if the Series 32 is to work in SIMPLEX.

Segment **5**: **ISO** (Re-levelling).

We program segment 5 to " 1 " if the Series 32 is to drive the RE-LEVELLING option (Open doors and Closed doors).
We program segment 5 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

Segment **4**: **RMLIFT** (Control System MLIFT).

We program segment 4 to " 1 " if the Series 32 is to drive a variable frequency speed control system.
We program segment 4 to " 0 " in the reverse case.

Segment **3**: **NIVSIN** (Levels damaged by fire).

We program segment 3 to " 1 " if the Series 32 is to manage levels damaged by fire.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: **DSERVS** (Double Selective SERVice).

We program segment 2 to " 1 " if the Series 32 is to manage 2 service selective.

Segment **1**: **OUAVAR** (Open Before Stop).

We program Segment 1 to " 1 " if the Series 32 is to carry out the OPEN BEFORE STOP function and therefore to control a bridging device from the safety chain.
We program Segment 1 to " 0 " in the reverse case.

Segment **0**: Not used.

• Par Address **03**: **NBOPER** (Number of Door Operators).

Best displayed in hexadecimal mode.
At this address, we program the number of door operators to be operated.
As the Series 32 can only control 2 automatic doors, only the values 00, 01 or 02 can be programmed.

• Par Address **04**: **NIVSUP** (Upper Level).

Best displayed in hexadecimal mode.
At this address, we program the UPPER LEVEL of the installation (total number of levels minus 1, thus 1 to 15).
Here are the conversions between the decimal and hexadecimal numbers 00 to 15 ..... 00 to 0F.

00 decimal = 00 hex	08 decimal = 08 hex
01 decimal = 01 hex	09 decimal = 09 hex
02 decimal = 02 hex	10 decimal = 0A hex
03 decimal = 03 hex	11 decimal = 0B hex
04 decimal = 04 hex	12 decimal = 0C hex
05 decimal = 05 hex	13 decimal = 0D hex
06 decimal = 06 hex	14 decimal = 0E hex
07 decimal = 07 hex	15 decimal = 0F hex

PARAMETER DEFINITIONS

• Par Address **05**: **NIVINF** (Bottom Level).

Best displayed in hexadecimal mode.
At this address, we program the BOTTOM LEVEL. (from 00 to 14).
For SIMPLEX, we program 00.

For MULTIPLEX, it is possible for one of the cars not to decsend as slow as the others and serves 2 levels less, for example.
In this case, we program the upper level to the same value as the others (if all serve the same height level) and the BOTTOM LEVEL to 02 for one car and to 00 for the second car.

Example: 8 levels multiplex for the simplex 0 and 6 levels for simplex 1.

Simplex 0 serves Level 7, Simplex 1 serves Level 7.
Simplex 0 serves Level 6, Simplex 1 serves Level 6.
Simplex 0 serves Level 5, Simplex 1 serves Level 5.
Simplex 0 serves Level 4, Simplex 1 serves Level 4.
Simplex 0 serves Level 3, Simplex 1 serves Level 3.
Simplex 0 serves Level 2, Simplex 1 serves Level 2.
Simplex 0 serves Level 1, Simplex 1 does not serve Level 1.
Simplex 0 serves Level 0, Simplex 1 does not serve Level 0.

• Par Address **06**: **NIVPRIM** (Main Level).

Best displayed in hexadecimal mode.
At this address, we program the MAIN LEVEL or RESET LEVEL (from 00 to 15).
The reset level is the same as the main level as well as the fireman service level.
Remember that in Autinor jargon, the lowest level is level 0.

- if the reset level is at level 0, then program 0.
- if the reset level is at level 1, then program 1.
- if the reset level is at level 2, then program 2.
- etc...
- etc...
- etc...
- if the reset level is at level 15, then program 0F.

See pages **94** for the conversion between decimal and hexadecimal mode (00 to 15 ..... 00 to 0F).

PARAMETER DEFINITIONS

- Par Address **07**: Best displayed in segment mode.

Segment **7**: **BLOCAG** (Single Automatic Operation).

We program segment 7 to " 1 " if the Series 32 is to work in single automatic operation.
We program segment 7 to " 0 " if the Series 32 is to work in collective.

Segment **6**: **DCOPRO** (Temporary Fault Contactor).

We program segment 6 to " 1 " if we want the Series 32 to give us the TEMPORARY FAULT CONTACTORS.
If this is the case, when a contactor fault appears, the Series 32 waits 6 seconds then tries to leave again on a new order.
We program segment 6 to " 0 " if we want the Series 32 to give out the definitive fault contactors.

Segment **5**: **OPTSP** (Landing Suspension Option).

We program segment 5 to " 1 " if the provisional landing suspension is requested.
Reminder: This device is for a systematic storage of action on the emergency stop device (cutting of 6) during the travel of the car. In the case of flush shaft, it allows the use of a spring-return button as an in-car stopping device. This is also the only effective means of control from the light beam threshold protection device. Only new action on a car call button will cause the departure and thus make subsequent calls possible. This storage, diagnosed by fault 23, is not carried out when the the car stops at a floor. We program segment to " 0 " if the provisional landing suspension is not requested.

Segment **4**: **OPTMAN** (Homing Control Option).

We program segment 4 to " 1 " when we want the Series 32 to process the homing control in machinery mode.
We program segment 4 to " 0 " in the reverse case.

Segment **3**: **OPREVM** (Service Up Option ?).

We program segment 3 to " 1 " when we want the Series 32 to allow a movement UP for direct inspection after a Reset, while the car is situated above ED.
Do not shim the selector if the coded screen is encountered.
Do not program segment 3 to " 0 " in the reverse case.

Segment **2**: **MPVHZ** (Calls in the slow zone).

We program segment 2 to " 1 " when we want to allow a call outside the release zone.
This possibility is useful in regulation mode leaving the car roof inspection and when a landing call is made to go up.

If the car is stopped in the Slow Speed Zone at the moment when the call is made and when the option is programmed, then it will rejoin the level which sometimes causes problems, depending on the type of control system. If the option is not programmed, the car will not move and only movement which begins by GV will be allowed.
We program segment 2 to " 0 " if we do not want such behaviour.

PARAMETER DEFINITIONS

Segment **1**: **OPED** (ED Option).

We program segment 1 to " 1 " when we want to use the contact ED in the case of reduced gaps.
We program segment 2 to " 0 " in the reverse case.

Segment **0**: **OUVPRE** (Opening upon PREsence).

We program segment 0 to " 1 " when we want the door which is in the process of closing to re-open on the landing call of the level where the car is located. This however, only if the call button corresponding to the direction has been pressed. (Re-open upon presence).
We program segment 0 to " 0 " in the reverse case.

- Par Address **08**: best displayed in segment mode.

Segment **7**: **2V** (2 speeds).

We program segment 7 to " 1 " if the A/H 32 is to drive a 2-speed motor.
We program segment 7 to " 0 " if the A/H 32 is to drive a 1-speed motor.

Segment **7**: **RECAV1** (Re-positionning in Speed 1) for HB/B 32.

We program segment 7 to " 1 " if we want the Series 32 to re-position in speed 1.
We program segment 7 to " 0 " if we want the Series 32 to re-position in speed 2.

Segment **6**: **APCL** (Landing Calls Flashing).

Programming segment 6 to " 1 "results in flashing hall call registration lights.
Programming segment 6 to " 0 " results in the reverse.

Segment **5**: **FLCLIG** (Direction Indicator Flashing).

Programming segment 5 to " 1 " results in the flashing of the direction or next departure indicators.
Programming segment 5 to " 0 " results in the reverse.

Segment **4**: **FLPDP** (Next Departure Arrows).

Programming segment 4 to " 1 " results in the Next Departure Arrows.
Programming segment 4 to " 0 " results in the reverse.

Segment **3**: **EFFNSEL** (Call Cancel Option).

Progamming segment 3 to " 1 " cancels the hall calls independent of direction, i.e. both up and down calls are cancelled.
This programming is essential when connecting-up the 1 main landing button to the Up and Down when there is a down collective with basement.
Programming segment 3 to " 0 " results in the reverse.

PARAMETER DEFINITIONS

Segment **2**: **MASMPX** (Multiplex Mass).

Programming segment 2 to " 1 " results in the Series 32 SLAVE not taking any notice of a Mass Fault.
Programming segment 2 to " 0 " results in the reverse.

Segment **1**: **IPF** (Re-Levelling with Door Closed).

Programming segment 1 to " 1 "results in re-levelling with closed doors.
This function is programmed in relation to address parameter 02 or 63, segment 5.
Programming segment 1 to " 0 " results in the reverse.

Segment **0**: **IPO** (Re-Levelling with Door Open).

Programming segment 0 to " 1 " results in re-levelling with the door open and can thus control a bridging device from the safety chain.
This function is programmed in relation to the address parameter 02 or 63, segment 5.
Programming segment 0 to " 0 " results in the reverse.

- Par Address **09**: best displayed in segment mode.

Segment **7**: **GONGAR** (GONG on stopping).

Programming segment 7 to " 1 " results in the GONG exit operating when the apparatus is immobilised.
Programming segment 7 to " 0 " results in the GONG exit operating in the Slow Speed Distance passage.

Segment **6**: **IGPPRO** (Temporary Door Integrator).

Programming segment 6 to " 1 " renders the door integrator fault temporary.
Programming segment 6 to " 0 " results in the reverse.

Segment **5**: **IGV** (High Speed Inspection).

Programming segment 5 to " 1 " results in high speed inspection.
Programming segment 5 to " 0 " results in the reverse.

Segment **4**: **PFLSGV** (No Fast Speed Direction Indicator).

Programming segment 4 to " 1 " results in the direction arrows being turned off at high speed.

Programming segment 4 to " 0 " results in the reverse.

PARAMETER DEFINITIONS

Segment **3**: **OPTOM** (Fireman Service Option).

Programming segment 3 to " 1 " selects the fireman service option.

Programming segment 3 to " 0 " disables this option.
In this case, the Series 32 ignores the state of the fireman service input.

Segment **2**: **MHSPF** (Out of Service Door Closed).

Arriving at the Out of Service Level, the doors will open and close indefinitely until this function is left.
Programming segment 2 to " 0 " results in the car parking with the door open, after the Out of Service sign is shown.

Segment **1** and **0**: **TYPOMP** (Type of Fire man Service)

We program in these 2 segments the code of the type of fireman service required.

Call code of the different types of fireman service:

ENGLISH FIRE SERVICE	...code 01.
SWISS FIRE SERVICE	...code 10.
FRENCH FIRE SERVICE	...code 00.

• Par Address **0A**: **TIG** (Time Integrator).

Best displayed in hex mode.
At this address, we program the integrator timing in seconds and in hex.

We can program a value from 02 to 45 seconds.

If we program a value under 2 seconds, a value of 02 seconds will be imposed (Norm).

If we program a value over 45 seconds, a value of 45 seconds will be imposed (Norm).

See page **94** for conversion between hex and decimal from 00 to 255 ..... 00 to FF.

• Par Address **0C**: **TPLU** (Automatic Light Timing).

Best displayed in hexadecimal mode.
At the address 0C, we program the timing of the automatic light in seconds and in hex.

We can program a value from 02 to 255 seconds.

See page **94** for conversion between decimal and hex, from 00 to 255 ..... 00 to FF.

PARAMETER DEFINITIONS

• Par Address **0D**: **TINS** (Inspection Time).

Best displayed in hexadecimal mode.
At the address 0D, we program the maximum time, in seconds and hex, allowed to run on inspection.
We can program a value from 01 to 255 seconds.
If we stop and then start again, we use this maximum time length again.

If the Series 32 interrupts the movement because we have exceeded the allowed time, it is necessary to wait this length of time before re-starting the inspection.
The same applies for homing control mode.

If the service timing is programmed to 00 then the inspection travelling limitation does not exist.

See page **94** for conversion between hex and decimal, from 00 to 255 ..... 00 to FF.

• Par Address **0E**: **TCAPGV** (Tape Head Beam Broken Time in Fast Speed).

Best displayed in hexadecimal mode.
At this address, we program the maximum allowed during which a tape head beam can be interrupted in fast speed.

We can program a value from 02 to 25.5 seconds at intervals of 0.1 seconds.

If we program a value under 2 seconds (20 tenths of seconds), a 2 second value will be imposed.

See page **94** for the conversion of hex to decimal from 00 to 255 ..... 00 to FF.

• Par Address **0F**: **TCAPPV** (Tape Head Beam Broken Time in Slow Speed).

Best displayed in hexadecimal mode.
At address 0F, we program the maximum allowed time during which a tape head beam can be interrupted in Slow Speed.

We can program a value from 3 to 25.5 seconds at intervals of 0.1 seconds.
If we program a value under 3 seconds (30 tenths of seconds) , a 3 second value will be imposed.

See page **94** for the conversion between decimal and hex, from 00 to 255 ..... 00 to FF.

• Par Address **10**: best displayed in segment mode.

Segment **0** to **7**: **OPTOM** (Car Calls Masking 0 to 7).

We program the corresponding segments to " 1 " when we want the Series 32 to reply to the corresponding landing calls.
We program the corresponding segments to " 0 " when we do not want the Series 32 to reply to the corresponding landing calls.

PARAMETER DEFINITIONS

- Par Address **11**: best displayed in segment mode.

Segment **0** to **7**: **OPTOM** (Car Calls Masking 08 to 15).

- Par Address **12**: Not used.

- Par Address **13**: best displayed in segment mode.

Segment **0** to **7**: (Mask the Landing Calls for Up, from levels 0 to 7).

We program the corresponding segments to " 1 " when we want the Series 32 to respond to the corresponding landing calls for up.
We program the corresponding segments to " 0 " when we do not want the Series 32 to respond to the corresponding landing calls for up.

- Par Address **14**: best displayed in segment mode.

Segment **1** to **7**: (Mask the Landing Calls for Up, from levels 8 to 15).

- Par Address **15**: Not used.

- Par Address **16**: best displayed in segment mode.

Segment **1** to **7**: (Mask the Landing Calls for Down, from levels 1 to 7).

We program the corresponding segments to " 1 " when we want the Series 32 to respond to the corresponding landing calls for down.

We program the corresponding segments to " 0 " when we do not want the Series 32 to respond to the corresponding landing calls for down.

PARAMETER DEFINITIONS

- Par Address **17**: best displayed in segment mode.

Segment **0** to **7**: (Mask the Landing Calls for Down, from levels 8 to 15).

- Par Address **18**: Not used.

- Par Address **19**: (Only with vanes) best displayed in segment mode.

Segment 7: not used.
Segment 6: not used.
Segment 5: not used.
Segment 4: not used.
Segment 3: not used.
Segment 2: not used.

Segment **1**: **PVCRH** (Slow Speed Distance crossed at Upper Level).

We program segment 1 to " 1 " when the set up of the site is such that it is necessary to cross the Slow Speed Distance of the last upper in-between-level.
We program segment 1 to " 0 " when the set up of the site does not impose into the Crossed Slow Speed Distance of the last upper in-between level.
Additionally, see the addresses 1A and 1B.

Segment **0**: **PVCRB** (Slow Speed Distance crossed at Lower Level).

We program segment 0 to " 1 " when the set up of the site is such that it is necessary to cross the Slow Speed Distance Zones of the last lower in-between level.
We program segment 0 to " 0 " when the set up of the site does not impose into the Crossed Slow Speed Distance of the last lower in-between level.
Additionally, see addresses 1A and 1B.

- Par Address **19**: **TPISO** (Only with a slotted tape) (Re-Levelling Timing).

Best displayed in hexadecimal mode.
At address 19, we program the maximum time for a re-levelling movement.
We can program a value from 2 to 10 seconds at intervals of 1 second.
If we program a value under 2 seconds, a 2 seconds value will be imposed.
If we program a value over 10 seconds, a 10 seconds value will be imposed.

See page **94** for the conversion between decimal and hex, from 0 to 255 ... 00 to FF.

PARAMETER DEFINITIONS

- Par Address **1A**: best displayed in segment mode.

Segment **0**: Programming of the Crossed Slow Speed Distance for in-between levels 0 to 1.

We program segment 0 to " 1 " when the set up of the site is such that it is necessary to cross the Slow Speed distance zones between levels 0 and 1.
We program segment 0 to " 0 " when the set up of the site does not impose into the Crossed Slow Speed Distance between levels 0 and 1.

Segment 1: programming of the crossed slow speed distance for between levels 1 and 2.
Segment 2: programming of the crossed slow speed distance for between levels 2 and 3.
Segment 3: programming of the crossed slow speed distance for between levels 3 and 4.
Segment 4: programming of the crossed slow speed distance for between levels 4 and 5.
Segment 5: programming of the crossed slow speed distance for between levels 5 and 6.
Segment 6: programming of the crossed slow speed distance for between levels 6 and 7.
Segment 7: programming of the crossed slow speed distance for between levels 7 and 8.

- Par Address **1B**: best displayed in segment mode.

Segment 0: programming of the crossed slow speed distance for between levels 8 and 9.
Segment 1: programming of the crossed slow speed distance for between levels 9 and 10.
Segment 2: programming of the crossed slow speed distance for between levels 10 and 11.
Segment 3: programming of the crossed slow speed distance for between levels 11 and 12.
Segment 4: programming of the crossed slow speed distance for between levels 12 and 13.
Segment 5: programming of the crossed slow speed distance for between levels 13 and 14.
Segment 6: programming of the crossed slow speed distance for between levels 14 and 15.
Segment 7: not used.

- Par Address **1C**: Not used.

- Par Address **1D**: **NUSPLX** (SimPLeX NUmber). best displayed in hexadecimal.

At this address, we program the simplex number in case of Multiplex.

As the number of apparatus that can be put into an interconnected group is 2, the simplex number will go from 00 to 01.

- Par Address **1E**: **TFR10** (Filtering of 10).

Best displayed in hex mode.
At this address, we program the time that runs between the moment where 10 of the safety chain is good, and the moment when movement occurs.

This timing is to filter the mechanical jumps on 10 and can last up to 500 milliseconds.

This timing is programmable at intervals of 10ms and in hex.

See page 94 for the conversion between decimal and hex, from 00 to 255 ..... 00 to FF.

PARAMETER DEFINITIONS

- Par Address **1F**: **TPRAU** (Homing Time) best displayed in hexadecimal.

At this address, we program the time it takes from the moment the apparatus is no longer sought and its automatic return to a particular level.
This time is programmed in seconds and hex.
We can program a value from 1 to 255 seconds.

If we program 00, there is no homing.

See page 94 for the conversion between decimal and hex, from 00 to 255 ..... 00 to FF.

As concerns this timing, it is necessary to program the level to which the apparatus must return to address 20.

- Par Address **20**: **NIVRAU** (Homing Level) best displayed in hexadecimal.

At this address, we program, in hex, the address to which a cabin will return, if it is not sought after a certain delay which is contained in address 1F.

See page 94 for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

Segment **5**: **TRAPM** (Lengthened Homing Time).

We program segment 5 to " 1 " if we want the base units of the door timings to extend from 1 to 2.5 seconds, thus allowing times from 5 seconds to 10 minutes.
We program segment 5 to " 0 " in the reverse case.

- Par Address **21**: **TGONG** (GONG Time) best displayed in hexadecimal.

At this address, we program the length of time during which the GONG (SPG1 to 3) exit is activated.
This time is programmed at intervals of 0.1 seconds and in hex.

We can program a value from 0.1 to 10 seconds.

See page 94 for the conversion between decimal and hex, from 00 to 255 ..... 00 to FF.

- Par Address **22**: **COMDEM** (Trip Counter) best displayed in decimal.

The Series 32 has a 6 figure trip counter, and so can memorise 999999 movements.
Address 22 changes the 2 right-hand figures.

- Par Address **23**: **COMDEM** (Trip Counter) best displayed in decimal.

Address 23 increments the 2 middle figures.

- Par Address **24**: **COMDEM** (Trip Counter) best displayed in decimal.

Address 24 increments the 2 left-hand figures.

PARAMETER DEFINITIONS

- Par Address **25**: **NUMARO** (Cabinet Number) best displayed in decimal.

The Series 32 has an " identity card ", formatted in the following way: YEAR / MONTH / POSITION NUMBER.

E.G.: a cabinet with the number 93 / 09 / 57 is a cabinet made in the year 1993, the month of September and the 57th produced that month.
At address 25, we program the position number.

- Par Address **26**: **NUMAR1** (Cabinet Number) best displayed in decimal.

At address 26, we program the production month.

- Par Address **27**: **NUMAR2** (Cabinet Number) best displayed in decimal.

At address 27, we program the production year.

- Par Address **28**: **REPT00** (REPeater at level 00) best displayed in hexadecimal.

At this address, we program the selection code of the character (among those contained in the REF displays are ID30, ID50, IDFL30, IDFL50) which we want to display at level 0.

See the table for the conversion between the different characters it is possible to display.

• Par Address **29**:	Same for level 01.
• Par Address **2a**:	Same for level 02.
• Par Address **2b**:	Same for level 03.
• Par Address **2c**:	Same for level 04.
• Par Address **2d**:	Same for level 05.
• Par Address **2e**:	Same for level 06.
• Par Address **2f**:	Same for level 07.
• Par Address **30**:	Same for level 08.
• Par Address **31**:	Same for level 09.
• Par Address **32**:	Same for level 10.
• Par Address **33**:	Same for level 11.
• Par Address **34**:	Same for level 12.
• Par Address **35**:	Same for level 13.
• Par Address **36**:	Same for level 14.
• Par Address **37**:	Same for level 15.

PARAMETER DEFINITIONS

- Par Address **38 to 3F**: best displayed in segment mode.

We will see later, at address **5B** (programmed has 04), that we can program the Series 32 driven hydraulic type.

It could be that a new kind of hydraulic unit which functions differently appears and does not correspond 100% with the pre-programmed types.
From addresses 38 to 3F, it is possible to define a particular function for a particular hydraulic unit.

Each address to be defined corresponds to the STATE of the valves and contactor for each stage of a movement.

This sequence is the same whatever type of hydraulic, but the way in which to carry out each stage differs depending on the unit (number of different types of valves, different procedures etc...).

Each address, from 38 to 3F represents a stage and we assign the contactors and the valves to an address which must be activated by it.

We program the segment to " 1 " when we wish to activate a part in this stage.

EXAMPLE OF SPECIAL DEFINITION FOR HYDRAULIC SEQUENCE

Address	V4	V3	V2	V1		L	Δ	Y	Stage
38	1	1	1			1		1	Up high speed L, Y
39	1	1	1			1	1		Up high speed L, Δ
3A		1	1			1		1	Up slow speed L, Y
3B		1	1			1	1		Up slow speed L, Δ
3C			1			1	1		Complete stop, up
3D	1	1		1		1	1	1	Down, high speed, L
3E		1		1		1	1	1	Down, low speed, L
3F				1		1	1	1	Complete stop, down L
Segment	**Seg 7**	**Seg 6**	**Seg 5**	**Seg 4**	**Seg 3**	**Seg 2**	**Seg 1**	**Seg 0**	
Valve	Valve for high speed	Valve for slow speed	Up direction	Down direction					

PARAMETER DEFINITIONS

Segment **7**: **V4** (Valve 4).

Programming segment 7 to " 1 " activates valve N° 4 at this stage.
Programming segment 7 to " 0 "results in the reverse case.

Segment **6**: **V3** (Valve 3).

Programming segment 6 to " 1 " activates valve N° 3 at this stage.
Programming segment 6 to " 0 "results in the reverse case.

Segment **5**: **V2** (Valve 2).

Programming segment 5 to " 1 " activates valve N° 2 at this stage.
Programming segment 5 to " 0 "results in the reverse case.

Segment **4**: **V1** (Valve 1).

Programming segment 4 to " 1 " activates valve N° 4 at this stage.
Programming segment 4 to " 0 "results in the reverse case.

Segment **3**: Not used.

Segment **2**: **LINE** (Line Contactor).

Programming segment 2 to " 1 " activates the line contactor at this stage.
Programming segment 2 to " 0 "results in the reverse case.

Segment **1**: **DELTA** (Delta Contactor).

Programming segment 1 to " 1 " activates the delta contactor at this stage.
Programming segment 1 to " 0 "results in the reverse case.

Segment **0**: **STAR** (Star Contactor).

Programming segment 0 to " 1 " activates the STAR contactor at this stage.
Programming segment 0 to " 0 "results in the reverse case.

- Par Address **39**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **3A**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **3B**: best displayed in segment mode.

Same address **38** for stage:

PARAMETER DEFINITIONS

- Par Address **3C**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **3D**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **3E**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **3F**: best displayed in segment mode.

Same address **38** for stage:

- Par Address **40**: best displayed in segment mode.

At this address, we program the mechanical characteristics of DOOR 1 which the Series 32 will operate.

Segment **7**: **RGPT**

Segment **6**: **VERSTF1** (Door Forced when Closed).

We program segment 6 to " 1 " when we want to give a close signal in the case where a movement is desired. A message is given stating that the closure limit switch of Door 1 is open but that 8 from the safety chain has not been closed.
If there is a mechanical problem, in spite of 8 from the safety chain remaining closed, the closure relay will be activated when the door integrator time has run out.
We program segment 6 to " 0 " in the reverse case.

Segment **5**: **P1SFCOU** (Door 1 without Opening).

We program segment 5 to " 1 " when we want to operate automatic door 1 without an opening limit (FCOU).

Segment **4**: **P1SFCFE** (Door 1 without Closure Limit).

We program segment 4 to " 1 " when we want to operate automatic door 1 without a closing limit (FCFE).
We program segment 4 to " 0 "when we want to operate an automatic door fitted with a closing limit (FCFE).

Segment **3**: **PMAFCP1** (Door 1 Extended Close Time).

We program segment 3 to " 1 " to hold the door close signal an additional 300ms after the closed limit has been reached.
We program segment 3 to " 0 " when we want to stop the movement from when door 1 reaches the close limit.

PARAMETER DEFINITIONS

Segment **2**: **MSTPMP1** (Door 1 Forced Closure when Moving).

We program segment 2 to " 1 " when we want to give a door close signal while the car is moving.
We program segment 2 to " 0 " in the reverse case.

Segment **1**: **AMPSEC1** (Door 1 Drift OK).

If we program this segment to " 1 " and door 1 does not have a close limit , the Series 32 will provide a close signal until 8 is closed. If the door drifts open and 8 is open, the door close signal is NOT given again. Only if a call is made is the door close signal given.
With this type of door, we always program the option Forced Door Closure when Moving.
We program segment 1 to " 0 " when this option is not required.

Segment **0**: **MSTPRP1** (Permanent Door 1 Signal).

We program segment 0 to " 1 " to keep the door 1 open or close signal even if the open or closed limit has been reached.
We program segment 0 to " 0 " in the reverse case.

• Par Address **41**: **TPO1** (Door 1 Timing) best displayed in hexadecimal.

At this address, we program the timing of door 1 in seconds and hex.

We can program a value of 1 to 255 seconds.

See page **94** for the conversion between decimal and hex, 0 to 255 ..... 00 to FF.

• Par Address **42**: **TREP1** (Door 1 Re-Open Time) best displayed in hexadecimal.

At this address we program the time the door stays open when a re-open signal has been given (COI or CS).

This time is programmed in seconds and hex (from 1 to 255 seconds).

See page **94** for the conversion between decimal and hex, 0 to 255 ..... 00 to FF.

• Par Address **43**: **NIVMHS** (Floor Out of Service) best displayed in hexadecimal.

At this address, we program the floor where the car parks when we use the " out of service " function.

If we wish the car to stay where it is the moment we activate the function, program " 0 " to segments 6 and 7.

If we wish the car to park door(s) open or closed, we do this by switching on segment 7 for door 1 and segment 6 for door 2.

Segment **2** at address **09** (**MHSPF**) will thus be switched off.

PARAMETER DEFINITIONS

- Par Address **44**: **TIRP1** (Re-Open Door 1 Delay) best displayed in hexadecimal.

At this address, we program the desired time delay between reversing the direction of the door movement when re-opening .
This may be necessary if the inertia of the door is high.
Time is adjustable between 00ms and 2.55 seconds at intervals of 0.01 seconds.

See page **94** for the conversion between decimal and hex, 0 to 255 ..... 00 to FF.

- Par Address **45**: **TFR8** (Filtering of 8) best displayed in hexadecimal.

At this address, we program the time allowed for contact bounce of the car gate switch (input 8).
Time is adjustable between 00ms and 2.55 seconds. Values are entered at intervals of 10ms.
E.G.: If a time delay of 500ms is desired, this would correspond to 50 × 10 ms.
Consulting page **94**, we can see that this equals 32 in hex, so the value programmed would be 32.

- Par Address **46**: **TVP1/2** (Maximum time between 8 and 10) best displayed in hex.

At this address, we program the maximum time allowed between inputs 8 and 10 when a call has been made.

E.G.: Flush shaft ascent fitted with swing landing doors and a mobile retiring ramp.

The safety chain circuit is such that when the lift does not move and all the doors are shut, 8 will appear. Making a call, combined with the fact that 8 is present, activates the mobile retiring ramp. If all goes well, 10 will appear almost instantly. We will program a small interlock time of 3 seconds. If, by contrast, the interlock is not done, once the time has passed, the retiring ramp is de-activated to avoid it remaining under tension - permanently!

The timing is the same for doors 1 and 2.

We can program a value from 0 to 255 seconds.

See page **94** for the conversion between decimal and hex, 0 to 255 ..... 00 to FF.

- Par Address **47**: **TIGP01** (Door 1 Integrator Time) best displayed in hexadecimal.

At this address, we program the maximum time allowed for the door 1 integrator time in seconds and hex.

See page **94** for the conversion between decimal and hex, 0 to 255 ..... 00 to FF.

If we program 00, there is no door integrator.

PARAMETER DEFINITIONS

- Par Address **48**: best displayed in segment mode.

At this address, we define the operation of door 1 for level 0.

Segment **7**: **RCAME** (Retiring Ramp Delay).

If we program segment 7 and the " single car door " segment 4 to 1, there is a delay of 1.5 seconds when arriving at the level before the retiring ramp is de-energised.
This limits the risk of getting fingers trapped in the car door which will barely start its opening movement, insofar as we do not know how to open swing door before 1.5 seconds have elapsed.

If we program segment 7 to " 1 " in the case of totally automatic doors the retiring ramp is de-energised 1 second before initiating the door opening on arriving at a level.
This can be useful in the case of the totally automatic doors interlocked with a retiring ramp. Indeed, problems of things getting stuck can occur if the doors are opened at the same time as the de-energising of the retiring ramp.

Segment **6**: **Not used**

Segment **5**: **Not used**

Segment **4**: (Car Door 1 at Level 0).

We program segment 4 to " 1 " when a car is fitted with an automatic door commanded by the Series 32 relays, the landing doors being of the swinging type.

We program segment 4 to " 0 " when a flush shaft, an automatic car door driven by one retiring ramp or an automatic car and hall door is used.

Segment **3**: **OUAVAP1N0** (Opening Door 1 Before Stop at Level 0).

We program segment 3 to " 1 " when we want the Series 32 to Open Door 1 Before Stopping at Level 0.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: **STP1OUN0** (Parking with Door 1 Open at level 0).

We program segment 2 to " 1 " when we want the car to park with door 1 open at level 0.
We program segment 2 to " 0 " in the reverse case.

Segment **1**: **SER1INO** (Service 1 not allowed at Level 0).

We program segment 1 to " 1 " when we wish to prevent door 1 opening at level 0.
We program segment 1 to " 0 " when we authorise the opening of door 1 at level 0.

PARAMETER DEFINITIONS

Segment **0**: **OUNSIMN0** (Non-Simultaneous Door Opening at Level 0).

We program segment 0 to " 1 " when we wish to prevent the simultaneous opening of doors 1 and 2 at level 0 (Locking effect).
We program segment 0 to " 0 " when we authorise the simultaneous opening of doors 1 and 2 at level 0.
This function can only be used with the double service selective.

- Par Address **49**: best displayed in segment mode.

At this address, we define the operation of door 1 for level 1.

• Par Address **4a**: .. Same for level 02.	• Par Address **51**: .. Same for level 09.
• Par Address 4b: .. Same for level 03.	• Par Address **52**: .. Same for level 10.
• Par Address **4d**: .. Same for level 05.	• Par Address **54**: .. Same for level 12.
• Par Address **4e**: .. Same for level 06	• Par Address **55**: .. Same for level 13.
• Par Address **4f**: .. Same for level 07.	• Par Address **56**: .. Same for level 14.
• Par Address **50**: .. Same for level 08.	• Par Address **57**: .. Same for level 15.

- Par Address **58**: **TDEMYD** (Start-up time Star Delta) best displayed in hexadecimal.

At this address, we program the time during which we want the STAR contactor to be on.
We can program a time from 0 to 25.5 seconds at intervals of 0.1 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

- Par Address **59**: **TARMVT** (Movement Stop Time) best displayed in hexadecimal.

At this address, we program the time during which the ascent Slow Speed distance valve continues to be fed after the stopping point.
We can program a time from 0 to 2.55 seconds at intervals of 0.01 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

- Par Address **5A**: **TPMPVM** (Movement Extension time for the Ascent Slow Speed Distance) best displayed in hexadecimal.

At this address, we program the extra time we need to feed the motor.
We can program a time from 0 to 2.55 seconds at intervals of 0.01 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

PARAMETER DEFINITIONS

- Par Address **5B**: **TYPHYD** (Hydraulic Type) best displayed in hexadecimal.

At this address, we program the type of hydraulic that the Series 32 will drive.
See in the list below the number which has been attributed to the main types of hydraulics currently known:

0 = GMV-MARTINI 3 Valves.
0 = MORRIS.
0 = OMAR.
1 = HAMMOND-CHAMPNESS.
1 = ALGI.
2 = DOVER.
3 = BERINGER ELECTRONIQUE.
4 = Can be defined in addresses 38 to 3F.

- Par Address **5C**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: **RAMDES** (Down Collective).

We program segment 6 to " 1 " when we want to carry out the Down Collective.
We program segment 6 to " 0 " in the reverse case.

Segment **5**: **BASE 8N** (Base 8 Level).

We program segment 5 to " 1 " when we want to set up a single automatic operation or a 1 button collective up and down. All this up to level 8 just by using using the BG15 (without addition of the BG18).
We program 5 to " 0 " in the reverse case.

Segment **4**: Not used.

Segment **3**: **DNH** (Oil Level Fault).

We program segment 3 to " 1 " when we want to operate the Oil Level Fault Contact.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: Not used.

Segment **1**: **DEMDIR** (Direct Start-Up).

We program segment 1 to " 1 " when we want to carry out a direct start-up.
We program segment 1 to " 0 " when we want to carry out a Star-Delta start-up.

PARAMETER DEFINITIONS

Segment **0**: **TAQUET** (Pawl).

We program segment 0 to " 1 " when we want to operate the pawls.
We program segment 0 to " 0 " in the reverse case.

- Par Address **5D**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: **DPLX** (Multiplex).

We program segment 6 to " 1 " if we want to use a multiplex interconnected group.
We program segment 6 to " 0 " if we want the Series 32 to work in simplex.

Segment **5**: Not used.

Segment **4**: Not used.

Segment **3**: **NIVSIN** (Levels Damaged by Fire).

We program segment 3 to " 1 " if we want to control Levels Damaged by Fire.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: **DSERVS** (Double Selective Service).

We program segment 2 to " 1 " if we want to operate 2 Service Selective.

We program segment 2 to " 0 " in the reverse case.

Segment **1**: Not used.

Segment **0**: Not used.

- Par Address **5E**: **TRAUN0** (Automatic Homing Time to Level 0) best displayed in hexadecimal.

At this address, we program the time that runs between the moment when the apparatus is being called and its automatic homing to level 0.
We can program a time from 1 to 15 minutes at intervals of 1 minute.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

By programming 00, this function will not be used.

PARAMETER DEFINITIONS

- Par Address **5F**: **TRAUN0** best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: **STPREG** (thermostat Regulation).

We program segment 4 to " 1 " if we want to operate a thermostat for the SLOW SPEED DISTANCE IN RELATION TO THE OIL TEMPERATURE IN THE HYDRAULIC UNIT function.
See the parameters to addresses 5F, segment 1, C0 TO C7 AND C8 TO CF.
We program segment 4 to " 0 " in the reverse case.

Segment **3**: **DCTQET** (Doubling the Pawl Control Speed).

We program segment 3 to " 1 " when we want to double the time allowed for the pawl control.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: Not used.

Segment **1**: **REGDRAL** (Slow Speed Distance Regulation).

We program segment 1 to " 1 " if we want to operate the SLOW SPEED IN RELATION TO THE OIL TEMPERATURE IN THE HYDRAULIC UNIT function.

See the parameters to addresses 5F, segment 4, C0 to C7 and C8 to CF.
We program segment 0 to " 1 " in the reverse case.

Segment **0**: Not used.

- Par Address **60**: best displayed in segment mode.

At this address, we set out the desired mechanical characteristics of DOOR 2:
The relays which drive door 2 are those mounted outside the door.

Segment **7**: Not used.

Segment **6**: **VERSTF2** (Door Forced when Closed).

We program segment 6 to " 1 " when we want to provide a door close signal even if the closed limit has been reached, but 8 has not yet been closed.
If a mechanical problem means that in spite of everything 8 from the safety chain is not closed, the closure relay will drop when the door integrator time has elapsed.
We program 6 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

Segment **5**: **P2SFCOU** (Door 2 without Open Limit).

We program segment 5 to " 1 " when we wish to operate Door 2 in the open direction without looking for a door open limit (FCOU).
We program segment 5 to " 0 " when we want to operate an automatic door equipped with a close limit switch (FCOU).

Segment **4**: **P2SFCFE** (Door 2 without Closed Limit).

We program segment 4 to " 1 " when we want to operate Door 2 in the close direction without looking for a door close limit (FCFE).
We program segment 4 to " 0 " when we want to operate an automatic door equipped with a closure limit switch (FCFE).

Segment **3**: **PMAFCP2** (Door 2 Extended Close Time).

We program segment 3 to " 1 " when we want to maintain movement for an additional 300 ms after the closed limit has been reached.
We program segment 3 to " 0 " when we want to stop the movement from when door 2 has reached the closed limit.

Segment **2**: **MSTPMP2** (Keep Power On whilst Door 2 in Operation).

We program segment 2 to " 1 " when we want to keep door 2 motor on during operation.
We program segment 2 to " 0 " in the reverse case.

Segment **1**: **AMPSEC2** (Stopping of Door 2 Movement on arrival of Safety Chain).

We program segment 1 to " 1 " when we want to operate a door without having reached the closed limit and which has a tendency to re-open when the motor is no longer fed. Having lost 8 from the safety chain, we once more give a close signal to re-gain 8. The door will continue to bang if this option is not programmed. Indeed, the motor ceases to be fed the first time 8 appears.
With this type of door, we always program the Closing Forced when Moving option.
We program 0 to " 0 " when this option is not required.

Segment **0**: **MSTPRP2** (Keep Door 2 Power Permanently On).

We program segment 0 to " 1 " when we want to keep the door 2 motor operator permanently on when opening and closing.
We program segment 0 to " 1 " in the reverse case.

• Par Address **61**: **TP02** (Timing of Door N° 2) best displayed in hexadecimal.

At this address, we program the timing of door 2 in seconds and hex.
We can program a value from 2 to 255 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

PARAMETER DEFINITIONS

- Par Address **62**: **TREP2** (Re-Opening Time of Door 2) best displayed in hexadecimal.

At this address, we program the time during which door 2 stays open after having caused a RE-OPENING.
This timing is programmed into seconds and hex.
Its value must be between 1 and 255 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

- Par Address **63**: best displayed in segment mode.

Segment **7**: **CABVID** (Empty Car Option).

We program segment 7 to " 1 " when we want the A191 to operate the EMPTY CAR option.
This option consists of erasing all the requests for the car if after 3 stops the light cell has not been broken.
We program segment 7 to " 0 " in the reverse case.

Segment **6**: **SHTCS** (CS Nudging Option).

We program segment 6 to " 1 " when we want the A191 to nudge the CS option after the time programmed into address 62 has elapsed and if a request has been registered. Furthermore, we activate output " INH1 " which feeds a buzzer to inform passengers that the door will be re-closing.

(See output position - parameter address 7A, segments 4 to 7 on page 88).
We program segment 6 to " 0 " in the reverse case.

Segment **5**: **ISO** (Re-Levelling).

We program segment 5 to " 1 " if we want the RE-LEVELLING option (open AND closed doors).
We program segment 5 to " 0 " in the reverse case.

Segment **4**: **RMLIFT** (MLift Regulator).

We program segment 4 to " 1 " if we want to drive an MLift variable frequency speed regulator
We program segment 4 to " 0 " in the reverse case.

Segment **3**: Not used.

Segment **2**: **REGUL** (REGULator).

We program segment 2 to " 1 " when we want to drive an independent speed regulator.
We program segment 2 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

Segment **1**: **OUAVAR** (Open Before Stop).

We program segment 1 to " 1 " if we want to carry out the Open Before Stop function and thus operate the safety chain N66 nudging device.
We program segment 1 to " 0 " in the reverse case.

Segment **0**: **TPRAL** (Door Lengthening Time).

We program segment 0 to " 1 " if we want the base unit of the door timings to go from 1 to 2.5 seconds, thus allowing us to have times from 5 seconds to 10 minutes.
We program segment 0 to " 0 " in the reverse case.

- Par Address **64**: **TIRP2** (Reversal Time of the Door 2 Relays) best displayed in hex.

At this address, we program the time which runs from the instant the Serie 32 releases the closure relay to when it activates the door 2 open relay .

This timing is programmed at intervals of between 10 ms and 2.55 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

- Par Address **67**: **TIGPO2** (Door 2 Integrator Time) best displayed in hexadecimal.

At this address, we program the timing of the door 2 integrator in seconds and in hex.
We can program a value from 1 to 255 seconds.

See page **94** for the conversion between decimal and hex, from 0 to 255 ..... 00 to FF.

If we program 00, there will be no Door Integrator.

- Par Address **68**: **TIGPO2** best displayed in segment mode.

At this address, we define the door 2 functioning for level 0.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: **PORCAB2N0** (Car Door 2 at Level 0).

We program segment 4 to " 1 " when a car equipped with an automatic door commanded by the Series 32 relays (the landing doors are of the swing variety).

We program segment 4 to " 0 " with a flush shaft or with an automatic car driven by just 1 retiring ramp or with an automatic car and landing.

PARAMETER DEFINITIONS

Segment **3**: **OUAVAP2N0** (Open Before Stop of Door 2 at Level 0).

We program segment 3 to " 1 " when we want to carry out an opening before stop of door 2 at level 0.
We program segment 3 to " 0 " in the reverse case.

Segment **2**: **STPOU0** (Parking Door 2 Open at Level 0).

We program segment 2 to " 1 " when we want to park the car with door 2 open at level 0.
We program segment 2 to " 0 " in the reverse case.

Segment **1**: **SER2IN0** (Service 2 Not Allowed at Level 0).

We program segment 1 to " 1 " when the opening of door 2 at level 0 is not allowed.
We program segment 1 to " 0 " when we allow the opening of door 2 at level 0.

Segment **0**: **OUNSIM0** (Non Simultaneous Opening at Level 0).

We program segment 0 to " 1 " when the simultaneous opening of doors 1 and 2 at level 0 is not allowed (locking effect).
We program segment 0 to " 0 " when we allow the simultaneous opening of doors 1 and 2 at level 0.
This function can only be used in the double service selective.

- Par Address **69**: best displayed in segment mode.

At this address, we define the functioning of door 2 for level 1.

- Par Address **6a**: ..... same for level 02.
- Par Address **6b**: ..... same for level 03.
- Par Address **6c**: ..... same for level 04.
- Par Address **6d**: ..... same for level 05.
- Par Address **6e**: ..... same for level 06.
- Par Address **6f**: ..... same for level 07.
- Par Address **70**: ..... same for level 08.
- Par Address **71**: ..... same for level 09.
- Par Address **72**: ..... same for level 10.
- Par Address **73**: ..... same for level 11.
- Par Address **74**: ..... same for level 12.
- Par Address **75**: ..... same for level 13.
- Par Address **76**: ..... same for level 14.
- Par Address **77**: ..... same for level 15.

PARAMETER DEFINITIONS

- Par Address **78**: best displayed in segment mode.

Segment **7**:

We program segment 7 to " 1 " when we want to use programmable output 4 (SPG4) for the overload buzzer (RF).
We program segment 7 to " 0 " in the reverse case.

Segment **6**:

We program segment 6 to " 1 " when we want to use the programmable output 3 (SPG3) for the overload buzzer (RF).
We program segment 6 to " 0 " in the reverse case.

Segment **5**:

We program segment 5 to " 1 " when we want to use programmable output 2 (SPG2) for the overload buzzer (RF).
We program segment 5 to " 0 " in the reverse case.

Segment **4**:

We program segment 4 to " 1 " when we want to use programmable output 1 (SPG1) for the overload buzzer (RF).
We program segment 4 to " 0 " in the reverse case.

Segment **3**:

We program segment 3 to " 1 " when we want to use programmable output 4 (SPG4) for the OVERLOAD LIGHT (VSU).
We program segment 3 to " 0 " in the reverse case.

Segment **2**:

We program segment 2 to " 1 " when we want to use programmable output 3 (SPG3) for the overload light (VSU).
We program segment 2 to " 0 " in the reverse case.

Segment **1**:

We program segment 1 to " 1 " when we want to use programmable output 2 (SPG2) for the overload light (VSU).
We program segment 1 to " 0 " in the reverse case.

Segment **0**:

We program segment 0 to " 1 " when we want to use programmable output 1 (SPG1) for the overload light (VSU).
We program segment 0 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

- Par Address **79**: best displayed in segment mode.

Segment **7**:

We program segment 7 to " 1 " when we want to use programmable output 4 (SPG4) for the Out of Service light (VHS).
We program segment 7 to " 0 " in the reverse case.

Segment **6**:

We program segment 6 to " 1 " when we want to use programmable output 3 (SPG3) for the Out of Service light (VHS).
We program segment 6 to " 0 " in the reverse case.

Segment **5**:

We program segment 5 to " 1 " when we want to use programmable output 2 (SPG2) for the Out of Service light (VHS).
We program segment 5 to " 0 " in the reverse case.

Segment **4**:

We program segment 4 to " 1 " when we want to use programmable output 1 (SPG1) for the Out of Service Light (VHS).
We program segment 4 to " 0 " in the reverse case.

Segment **3**:

We program segment 3 to " 1 " when we want to use the programmable output 4 (SPG4) for the GONG (GONG).
We program segment 3 to " 0 " in the reverse case.

Segment **2**:

We program segment 2 to " 1 " when we want to use the programmable output 3 (SPG3) for the GONG (GONG).
We program segment 2 to " 0 " in the reverse case.

Segment **1**:

We program segment 1 to " 1 " when we want to use the programmable output 2 (SPG2) for the GONG (GONG).
We program segment 1 to " 0 " in the reverse case.

Segment **0**:

We program segment 0 to " 1 " when we want to use the programmable output 1 (SPG1) for the GONG (GONG).
We program segment 0 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

- Par Address **7A**: best displayed in segment mode.

Segment **7**:

We program segment 7 to " 1 " when we want to use the programmable output 4 (SPG4) to inhibit (INH1).
(See parameter address 63, segments 4 to 7).
We program segment 7 to " 0 " in the reverse case.

Segment **6**:

We program segment 6 to " 1 " when we want to use the programmable output 3 (SPG3) to INHIBIT (INH1).
(See parameter address 63, segments 4 to 7).
We program segment 6 to " 0 " in the reverse case.

Segment **5**:

We program segment 5 to " 1 " when we want to use the programmable output 2 (SPG2) to INHIBIT (INH1).
(See parameter address 63, segments 4 to 7).
We program segment 5 to " 0 " in the reverse case.

Segment **4**:

We program segment 4 to " 1 " when we want to use the programmable output 1 (SPG1) to INHIBIT (INH1).
(See parameter address 63, segments 4 to 7).
We program segment 4 to " 0 " in the reverse case.

Segment **3**:

We program segment 3 to " 1 " when we want to use the programmable output 4 (SPG4) for the fire service light (VPMP).
We program segment 3 to " 0 " in the reverse case.

Segment **2**:

We program segment 2 to " 1 " when we want to use the programmable output 3 (SPG3) for the fire service light (VPMP).
We program segment 2 to " 0 " in the reverse case.

Segment **1**:

We program segment 1 to " 1 " when we want to use the programmable output 2 (SPG2) for the fire service light (VPMP).
We program segment 1 to " 0 " in the reverse case.

Segment **0**:

We program segment 0 to " 1 " when we want to use the programmable output 1 (SPG1) for the fire service light (VPMP).
We program segment 0 to " 0 " in the reverse case.

PARAMETER DEFINITIONS

- Par Address **7B**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: Not used.

Segment **3**:

We program segment 3 to " 1 " when we want to use the programmable output 4 (SPG4) for the AUTOMATIC LIGHT (LU).
We program segment 3 to " 0 " in the reverse case.

Segment **2**:

We program segment 2 to " 1 " when we want to use the programmable output 3 (SPG3) for the AUTOMATIC LIGHT (LU).
We program segment 2 to " 0 " in the reverse case.

Segment **1**:

We program segment 1 to " 1 " when we want to use the programmable output 2 (SPG2) for the AUTOMATIC LIGHT (LU).
We program segment 1 to " 0 " in the reverse case.

Segment **0**:

We program segment 0 to " 1 " when we want to use the programmable output 1 (SPG1) for the AUTOMATIC LIGHT (LU).
We program segment 0 to " 0 " in the reverse case.

- Par Address **7E**: **CAADDEF** (Last But One Fault Code) best displayed in hexadecimal.

At this address, the Series 32 gives the fault code 3.

- Par Address **7F**: **CDEFPA** (Oldest Fault Code) best displayed in hexadecimal.

At this address, the Series 32 gives the fault code 4.

PARAMETER DEFINITIONS

- Par Address **CO**: Temperature up to which the distance **C8** is chosen, best displayed in hexadecimal.

At this address, in the context of the SLOW SPEED DISTANCE VARIATION OF THE OIL TEMPERATURE IN THE HYDRAULIC UNIT function, we program the temperature to which we will use the slow speed distance programmed into address C8 (in %).

- Par Address **C1**: Temperature up to which the distance **C9** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address C9 (in %).

- Par Address **C2**: Temperature up to which the distance **CA** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CA (in %).

- Par Address **C3**: Temperature up to which the distance **CB** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CB (in %).

- Par Address **C4**: Temperature up to which the distance **CC** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CC (in %).

- Par Address **C5**: Temperature up to which the distance **CD** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CD (in %).

- Par Address **C6**: Temperature up to which the distance **CE** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CE (in %).

- Par Address **C7**: Temperature up to which the distance **CF** is chosen, best displayed in hexadecimal.

We program the temperature up to which we will use the slow speed distance programmed into address CF (in %).

PARAMETER DEFINITIONS

- Par Address **C8**: Slow speed distance chosen up to the temperature programmed into **C0**, best displayed in hexadecimal.

At this address, in the context of THE SLOW SPEED DISTANCE VARIATION OF THE OIL TEMPERATURE IN THE HYDRAULIC UNIT function, we program the slow speed distance (in %) chosen up to the temperature programmed into C0.

- Par Address **C9**: Slow speed distance chosen up to the temperature programmed into **C1**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C1.

- Par Address **CA**: Slow speed distance chosen up to the temperature programmed into **C2**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C2.

- Par Address **CB**: Slow speed distance chosen up to the temperature programmed into **C3**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C3.

- Par Address **CC**: Slow speed distance chosen up to the temperature programmed into **C4**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C4.

- Par Address **CD**: Slow speed distance chosen up to the temperature programmed into **C5**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C5.

- Par Address **CE**: Slow speed distance chosen up to the temperature programmed into **C6**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C6.

- Par Address **CF**: Slow speed distance chosen up to the temperature programmed into **C7**, best displayed in hexadecimal.

We program the slow speed distance (in %) chosen up to the temperature programmed into C7.

INPUTS DEFINITIONS

In order to make the inputs visible, we must put the little switch on the left up in the " RAM " position.

- Ram Address **00**: best displayed in segment mode.

Segments **0** to **7**: **C0 - 7** (Car Calls 0 to 7).

They indicate to us respectively the state of the car call contacts C0 to C7 with the common COMB button.
The corresponding segments are on when contacts are closed to make a call.
The corresponding segments are off in the reverse case.

- Ram Address **01**: best displayed in segment mode.

Segments **0** to **7**: **C8 - 15** (Car Calls 8 to 15).

They show us respectively the state of the car calls contacts C8 to C15 with the common COMB button.
The corresponding segments are on when the contacts are closed to make a call.
The corresponding segments are off in the reverse case.

- Ram Address **03**: best displayed in segment mode.

Segments **0** to **7**: **MO - 7** (Landing Calls for Up, 0 to 7).

They show us respectively the state of the contacts of the landing calls for UP. M0 to M7 with the common COMB button.
The corresponding segments are on when the contacts are closed to make a call.
The corresponding segments are off in the reverse case.

- Ram Address **04**: best displayed in segment mode.

Segments **0** to **7**: **M8 - 15** (Landing Calls for Up, 8 to 15).

They show us respectively the state of the contacts of the landing calls for UP. M8 to M15 with the common COMB button.
The corresponding segments are on when the contacts are closed to make a call.
The corresponding segments are off in the reverse case.

INPUTS DEFINITIONS

- Ram Address **06**: best displayed in segment mode.

Segments **1** to **7**: **D1 - 7** (Landing Calls for Down, 1 to 7).

They show us respectively the state of the contacts of the landing call for Down D1 to D7 with the common COMB button.
The corresponding segments are on when the contacts are closed to make a call.
The corresponding segments are off in the reverse case.

Segment **0**: **M0** (Landing Calls for Up, 0).

- Ram Address **09**: best displayed in segment mode.

Segments **0** to **7**: **NF0 - 7** (Levels Damaged by Fire, 0 to 7).

They show us respectively the state of the levels damaged by fire contacts NF7 to NF0 with 0V.
The corresponding segments are on when the contacts are closed to indicate levels damaged by fire and thus not to serve them.
The corresponding segments are off in the reverse case.

- Ram Address **0A**: best displayed in segment mode.

Segments **0** to **7**: **NF8 - 15** (Levels Damaged by Fire, 8 to 15).

They show us respectively the state of the levels damaged by fire contacts NF7 to NF0 with 0V.
The corresponding segments are on when the contacts are closed to indicate the levels damaged by fire and thus not to serve them.
The corresponding segments are off in the reverse case.

- Ram Address **0C**: best displayed in segment mode.

Segment **7**: **SU** (Overload)

This shows us the state of the overload contact (SU and 0V).
Segment 7 is on when the contact is closed, i.e., in overload.
Segment 7 is off in the reverse case.

Segment **6**: Not used

Segment **5**: **ED** (Extreme Down Contact).

This shows us the state of the Extreme Down contact (ED and 0V).
Segment 5 is off when the contact is closed, i.e., when the car is not on ED.
Segment 5 is on when the car is on ED.

INPUTS DEFINITIONS

Segment **4**: **MAN** (Emergency Operation).

This shows us the state of the contact which switches to emergency operation (MAN and 0V).
Segment 4 is off when the contact is closed, i.e.; normal.
Segment 4 is on when the contact is open, i.e., when in emergency operation.

Segment **3**: **INS** (Inspection).

This shows us the state of the contact which switches to inspection (INS and 0V).
Segment 3 is off when the contact is closed, i.e., normal.
Segment 3 is on when the contact is open, i.e., when being inspected.

Segment **2**: **GM** (Up).

This shows us the state of the request movement contact in Up (GM and 0V).
Segment 2 is on when the contact is closed for an upward travel request. (GM and 0V).
Segment 2 is off in the reverse case.

Segment **1**: **GD** (Down).

This shows us the state of the movement request contact in Down (GD and 0V).
Segment 1 is on when the contact is closed for a downward travel request.
Segment 1 is off in the reverse case.

Segment **0**: **MASS** (MASS Relay).

This shows us the state of the MASS relay.
Segment 0 is on if there is a mass fault.
Segment 0 is off in the reverse case.

- Ram Address **0D**: best displayed in segment mode.

Segment **7**: Not used

Segment **6**: Not used

Segment **5**: **PH** (Phase Failure Input).

This shows us the state of the Phase Failure Input (PH and 0V).
Segment 5 is on when there is no phase.
Segment 5 is off in the reverse case.

Segment **4**: **THV** (Fan thermistor) TRACTION.

This shows us the state of the Fan thermistor (THV and OV).
Segment 4 is on when the contact is closed in case of a fault.
Segment 4 is off in the reverse case.

INPUTS DEFINITIONS

Segment **4**: **DNH** (Oil Level Fault) HYDRAULIC.

This shows us the state of the contact detecting the minimum oil level rendering further travel dangerous for the equipment.
Segment 4 is on when the contact is closed in the case of a fault.
Segment 4 is off in the reverse case.

Segment **3**: **RP** (Low Velocity Contactor Control) TRACTION.

This shows us the state of the low velocity contactor control (PV).
Segment 3 is on when the PV contactor is on.
Segment 3 is off in the reverse case.

Segment **3**: **NHM** (Minimum Oil Level) HYDRAULIC.

This shows us the state of the contact detecting the minimum oil level which is no longer dangerous for the equipment, but which still needs a little oil.
Segment 3 is on when the contact is closed due to a lack of oil.
Segment 3 is off in the reverse case.

Segment **2**: **RG** (High Velocity Contactor Control) TRACTION.

This shows us the state of the high velocity contactor control (GV).
Segment 2 is on when the GV contactor is on.
Segment 2 is off in the reverse case.

Segment **2**: **RL** (Ligne Contactor Control) HYDRAULIC.

This shows us the state of the path contactor (L).
Segment 2 is on when the contactor is on.
Segment 2 is off in the reverse case.

Segment **1**: **RM** (Up Contactor Control) TRACTION.

This shows us the state of the up contactor (MO).
Segment 1 is on when contactor MO is on.
Segment 1 is put off in the reverse case.

Segment **1**: **RY** (Star Contactor Control) HYDRAULIC.

This shows us the state of the star contactor (Y).
Segment 1 is lit when contactor Y is on.
Segment 1 is off in the reverse case.

Segment **0**: **RD** (Down Contactor Control) TRACTION.

This shows us the state of the down contactor (DE).
Segment 0 is lit when contactor DE is on.
Segment 0 is off in the reverse case.

Segment **0**: **R**Δ (Delta Contactor Control) HYDRAULIC.

This shows us the state of the Delta contactor (Δ).
Segment 0 is on when the Δ contactor is on.
Segment 0 is off in the reverse case.

INPUTS DEFINITIONS

- Ram Address **0E**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: **ZONE** (Door Zone Relay).

This shows us whether the shunting device DONNE the door zone or not.
Segment 6 is on if the device is in the zone.
Segment 6 is off in the reverse case.

Segment **5**: Not used.

Segment **4**: **PRIC** (Car Priority).

This shows us the state of the car priority contact. (PRIC and 0V).
Segment 4 is on when the contact is closed to command the car priority function.
Segment 4 is off in the reverse case.

Segment **3**: **NS** (Non-Stop).

This shows us the state of the Non-stop contact (NS and 0V).
Segment 3 is on when the contact is closed to command the Non-Stop function.
Segment 3 is off in the reverse case.

Segment **2**: **SUSD** (Delayed Departure).

This shows us the state of the delayed departure contact (SUSD and 0V).
Segment 2 is on when the contact is closed to command the delayed departure.
Segment 2 is off in the reverse case.

Segment **1**: **MHS** (Out of Service).

This shows us the state of the Out of Service contact (MHS and 0V).
Segment 1 is on when the contact is closed to command the Switch to out of Service function.
Segment 1 is off in the reverse case.

Segment **0**: **POM** (Fireman Service).

This shows us the state of the Fireman Service contact (POM and 0V).
Segment 0 is on when the contact is closed, i.e., when the Fireman Service function is commanded.
Segment 0 is off in the reverse case.

INPUTS DEFINITIONS

- Ram Address **0F**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: **FF1** (Front Door Close Button).

This shows us the state of the Front Door Close Button.
Segment 4 is on when the contact is closed for a command to force the door closed.
Segment 4 is off in the reverse case.

Segment **3**: **COI1** (Front Door Safety Knuckle Input).

This shows us the Front Door Safety Knuckle Input (COI1 and 0V).
Segment 3 is on when the contact is closed.
Segment 3 is off in the reverse case.

Segment **2**: **CS1** (Front Door Photocell Input).

This shows us the state of the Front Door Photocell Input (CS1 and 0V).
Segment 2 is off when the contact is closed, i.e., when the photocell is unbroken.
Segment 2 is on when the photocell detects something.

Segment **1**: **FCFE1** (Front Door Close End Limit).

This shows us the Front Door Close End Limit (FCFE1 and 0V).
The segment 1 is off when the Front Door Close End Limit is closed, i.e., when Door 1 is not completely closed.
The segment 1 is on when the Front Door Close End Limit is open, i.e., when Door 1 is completely closed.

Segment **0**: **FCOU1** (Front Door Open End Limit).

This shows us the state of the Front Door Open End Limit (FCOU1 and 0V).
Segment 0 is off when the Front Door Open End Limit is closed, i.e., when the door 1 is not completely opened.
Segment 0 is on when the Front Door Open End Limit is open, i.e., when Door 1 is completely opened.

INPUTS DEFINITIONS

- Ram Address **10**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: **FF2** (Rear Door Close Button).

This shows us the state of the Rear Door Close Button (FF2 et 0V).
Segment 4 is on when the contact is closed for a forced closure command..
Segment 4 is off in the reverse case.

Segment **3**: **COI2** (Rear Door Safety Knuckle Input).

This shows us the state of the Rear Door Safety Knuckle Input (CO12 and 0V).
Segment 3 is on when the contact is closed.
Segment 3 is off in the reverse case.

Segment **2**: **CS2** (Rear Door Photocell Input).

This shows us the state of the Rear Door Photocell Input (CS2 and 0V).
Segment 2 is off when the contact is closed, i.e., when the photocell is unbroken.
Segment 2 is on when the photocell detects something.

Segment **1**: **FCFE2** (Rear Door Close End Limit).

This shows us the state of the Rear Door Close End Limit (FCFE2).
Segment 1 is off when the Rear Door Close End Limit is closed, i.e., when the door is not completely shut.
Segment 1 is on when the Rear Door Close End Limit is open, i.e., when the door is completely closed.

Segment **0**: **FCOU2** (Rear Door Open End Limit).

This shows us the state of Rear Door Open End Limit (FCOU2).
Segment 0 is off when the Rear Door Open End Limit is closed, i.e., when the door is not completely open.
Segment 0 is on when the Rear Door Open End Limit is open, i.e., when the door is completely open.

INPUTS DEFINITIONS

- Ram Address **11**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: Not used.

Segment **3**: **EXD** (Extreme Down Contact).

This shows us the state of the Extreme Down Contact.
Segment 3 is on when the contact is open, i.e., when the car is below the bottom ED magnet ED.
Segment 3 is off when the contact is closed, i.e., when the car is above the bottom ED magnet ED.

Segment **2**: **EXM** (Extreme Up Contact).

This shows us the state of the Extreme Up Contact.
Segment 2 is on when the contact is open, i.e., when the car is above the top EM magnet.
Segment 2 is off when the contact is closed, i.e., when the car is below the top EM magnet.

Segment **1**: **CAB** (Tape head, Harness B).

This shows us the state of Harness B.
Segment 1 is on when harness B is open.
Segment 1 is off when harness B is closed.

Segment **0**: **CAA** (Tape head, Harness A).

This shows us the state of Harness A.
Segment 0 is on when harness A is open.
Segment 0 is off when harness A is closed.

INPUTS DEFINITIONS

- Ram Address **12**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: **MTH** (Oil Temperature Measure).

Segment 4 is on when the MTH 0V contact is open or when the temperature probe has reached a certain value.
Segment 4 is off in the reverse case.

Segment **3**: **STH** (Thermic Probe).

This shows us the state of the thermostat (STH and 0V).
Segment 3 is off when the contact is closed in normal operating mode.
Segment 3 is on in the reverse case.

Segment **2**: **10** (Level 10 of the Safety Lane).

This shows us the state of the safety lanes at level 10 of the safety lane.
Segment 2 is on when the safety lane connection is closed up to level 10.
Segment 2 is off in the reverse case.

Segment **1**: **8** (Level 8 of the Safety Lane).

This shows us the state of the safety lanes at level 8 of the safety lane.
Segment 1 is on when the safety lane connection is closed up to level 8.
Segment 1 is off in the reverse case.

Segment **0**: **6** (Level 6 of the Safety Lane).

This shows us the state of the safety lanes at level 8 of the safety lane.
Segment 0 is on when the safety lane connection is closed up to level 6.
Segment 0 is off in the reverse case.

INPUTS DEFINITIONS

- Ram Address **62**: best displayed in segment mode.

Segment **7**: Not used.

Segment **6**: Not used.

Segment **5**: Not used.

Segment **4**: Not used.

Segment **3**: Not used.

Segment **2**: **IGV** (Fast Speed Inspection).

This shows us the state of the Fast Speed Inspection contact.
Segment 2 is on when the contact is closed to request the Fast Speed Inspection.
Segment 2 is off in the reverse case.

Segment **1**: **TACQ2** (Anti-creep 2).

This shows the state of Anti-creep 2.
Segment 1 is on if the contact is closed when Anti-creep 2 has drawn back in.
Segment 1 is off in the reverse case.

Segment **0**: **TACQ1** (Anti-creep 1).

This shows us the state of Anti-creep 1.
Segment 0 is on if the contact is closed when Anti-creep 1 had drawn back in.
Segment 0 is off in the reverse case.

OUTPUTS DEFINITIONS

In order to make the outputs visible, we must put the little switch on the left up in the " **RAM** " position.

NOTE CONCERNING THE OUTPUTS:

Certain Outputs are ELECTRONIC and can only give out 50 mA under 24V (1.2W max). We will indicate this by putting (S ELEC) with their definition.

Certain Outputs are DRY relay CONTACTS whose common connection is accessible. We will indicate this by putting (S CONT) with their definition.

Certain Outputs are DRY relay CONTACTS whose common connection is not accessible because it is already linked internally to the 24R potential. We will indicate this by putting (S CONT 24R) with their definition.

It is suitable therefore to interface the outputs in accordance with the component to command.

- Ram Address **13**: best displayed in segment mode.

Segment **7**: **CREP** (Common Position Repeater) (S ELEC).

This shows us the state of the Common Position Repeater (CREP).
If segment 7 blinks, the CREP is " ALIVE".
If segment 7 is off or remains on, the CREP is "DEAD".

Segment **6**: **LU** (Automatic Car Light) (S ELEC).

This shows us the state of the Automatic Car Light (LU).
Segment 6 is on when the LU output is activated and gives out 0 Volt.
Segment 6 is off when the LU output is de-activated and gives out 24 Volts.

Segment **5**: **FE1** (Front Door Close Signal Output) (S CONT).

This shows us the state of the Front Door Close Signal Output (FE1).
Segment 5 is on if the Front Door Close Signal Output is fed.
Segment 5 is off in the reverse case.

Segment **4**: **OU1** (Front Door Open Signal Output) (S CONT).

This shows us the state of the Front Door Open Signal Output (OU1).
Segment 4 is on if the Front Door Open Signal Output is fed.
Segment 4 is off in the reverse case.

Segment **3**: **CAM** (Retiring Ramp).

This shows us the state of the Retiring Ramp output (CAM).
Segment 3 is on if the Retiring Ramp output is activated.
Segment 3 is off in the reverse case.

OUTPUTS DEFINITIONS

Segment **2**: **GV/PV** (Fast Speed / Slow Speed relay) (S CONT), **or V2** (for Freq.Drive).

This shows us the state of the Fast Speed / Slow Speed Relay (GV / GP).
Segment 2 is on if relay GV / PV is supplied to command contactor GV.
Segment 2 is off if the relay GV / PV is not supplied to command contactor PV.

Segment **1**: **DE** (Down Relay) (S CONT).

This shows us the state of the Down Relay (DE).
Segment 1 is on if the DE relay is fed.
Segment 1 is off in the reverse case.

Segment **0**: **MO** (Up Relay) (S CONT).

This shows us the state of the Up Relay (MO).
Segment 0 is on if the MO relay is fed.
Segment 0 is off in the reverse case.

- Ram Address **14**: best displayed in segment mode.

Segment **7**: **V1** (Speed 1) (S ELEC).

This shows us the state of Speed 1 output.
Segment 7 is on if Speed 1 output is activated.
Segment 7 is off in the reverse case.

Segment **6**: **V0** (Speed 0) (S ELEC).

This shows us the state of the Speed 0 output.
Segment 6 is on if Speed 0 output is activated.
Segment 6 is off in the reverse case.

Segment **5**: Not used.

Segment **4**: **SH8** (Bridge 8) (S ELEC).

This gives us the state of the SH8 output.
Segment 4 is on when SH8 output is activated and gives 0 V.
Segment 4 is off in the reverse case.

Segment **3**: **INH2** (Rear Door Inhibition) (S ELEC).

This shows us the state of the INH2 output which is activated when the anti-skating integrator is dropped.
Segment 3 is on when INH2 output is activated and gives 0 V.
Segment 3 is off in the reverse case.

OUTPUTS DEFINITIONS

Segment **2**: **INH1** (Front Door Inhibition) (S ELEC).

This shows us the state of INH1 output which depends on the option SHTCS (CS Bridge) address 63 segment 6.
Segment 2 is on when INH1 output is activated and gives 0 V.
Segment 2 is off in the reverse case.

Segment **1**: **FE2** (Rear Door Close Signal Output) (S CONT).

This shows us the state of the Rear Door Close Signal Output (FE2).
Segment 1 is on if the Rear Door Close Signal Output is fed.
Segment 1 is off in the reverse case.

Segment **0**: **OU2** (Rear Door Open Signal Output) (S CONT).

This shows us the state of the Rear Door Open Signal Output (OU2).
Segment 0 is on if the Rear Door Open Signal Output is fed.
Segment 0 is off in the reverse case.

- Ram Address **15**: best displayed in segment mode.

Segment **7**: **DEF** (Fault Light) (S ELEC).

This shows us the state of the Fault Light Output. (DEF).
Segment 7 is on when the Fault Output is activated and gives out 0 V.
Segment 7 is off when the Fault Output is de-activated and gives out 24V.

Segment **6**: **GONG** (GONG) (S ELEC).

This shows us the state of the GONG Output (GONG).
Segment 6 is on when the Gong Output is activated and gives out 24 Volts.
Segment 6 is off when the Gong Output is de-activated and gives out 0 Volts.

Segment **5**: **FD** (Down Arrow) (S ELEC).

This shows us the state of the Down Arrow (FD).
Segment 5 is on when the FD Output is activated and gives out 24 Volts.
Segment 5 is off when the FD Output is de-activated and gives out 0 Volts.

Segment **4**: **FM** (Up Arrow) (S ELEC).

This shows us the state of the Up Arrow (FM).
Segment 4 is on when the FM Output is activated and gives out 24 Volts.
Segment 4 is off when the FM Output is de-activated and gives out 0 Volts.

OUTPUTS DEFINITIONS

Segment **3**: **VSU** (Overload Light) (S ELEC).

This shows us the state of the Overload Light Output (VSU).
Segment 3 is on when the VSU Output is activated and gives out 0 Volts.
Segment 3 is off when the VSU Output is de-activated and gives out 24 Volts.

Segment **2**: **RF** (Buzzer) (S ELEC).

This shows us the state of the Overload Buzzer (RF).
Segment 2 is on when the RF Output is activated and gives out 0 Volts.
Segment 2 is off when the RF Output is de-activated and gives out 24 Volts.

Segment **1**: **VHS** (Out of Service Light) (S ELEC).

This shows us the state of the Out of Service Light Output. (VHS).

Segment 1 is on when the VHS Output is activated and gives out 0 Volts.
Segment 1 is off when the VHS Output is de-activated and gives out 24 Volts.

Segment **0**: **VPMP** (Fireman Service Light) (S ELEC).

This shows us the state of the Fireman Light Output (VPMP).
Segment 0 is on when the VPMP Output is activated and gives out 0 Volts.
Segment 0 is off when the VPMP Output is de-activated and gives out 24 Volts.

- Ram Address **16**: best displayed in segment mode.

Segment **0** to **7**: **QC0-7** (Car Registration Lights 0 - 7) (S ELEC).

These show us respectively the state of the Car Registration Lights QC0 to QC7.
Outputs QC0 to QC7 are the terminals C0 to C7.
The corresponding segments are on when the Outputs are activated and give out 0 Volts.
The corresponding segments are off when the Outputs are de-activated and give out 24 Volts.

- Ram Address **17**: best displayed in segment mode.

Segment **0** to **7**: **QC8-15** (Car Registration Lights 8 - 15) (S ELEC).

They show us respectively the state of the Car Registration Lights QC8 to QC15.
Outputs QC8 to QC15 are the terminals C8 to C15.

OUTPUTS DEFINITIONS

- Ram Address **19**: best displayed in segment mode.

Segment **0** to **7**: **QM0-7** (Hall Call Registration Lights for Up 0 to 7) (S ELEC).

They show us respectively the state of the Hall Call Registration Lights for Up, QM0 to QM7.
Outputs QM0 to QM7 are the terminals MX to M7.
The corresponding segments are on when the Outputs are activated and give out 0 Volts.
The corresponding segments are off when the Outputs are de-activated and give out 24 Volts.

- Ram Address **1A**: best displayed in segment mode.

Segment **0** to **7**: **QM8-15** (Hall Call Registration Lights for Up 8 to 15) (S ELEC).

They show us respectively the state of the Hall Call Registration Lights for Up, QM8 to QM15.
Outputs QM8 to QM15 are the terminals M8 to M15.

- Ram Address **1C**: best displayed in segment mode.

Segment **1** to **7**: **QD1-7** (Hall Call Registration Lights for Down 1 to 7) (S ELEC).

They show us respectively the state of the Hall Call Registration Lights for Down, QD1 to QD7.
Outputs QD1 to QD7 are the terminals D1 to D7.
The corresponding segments are on when the Outputs are activated and give 0 Volts.
The corresponding segments are off when the Outputs are de-activated and give 24 Volts.

Segment **0**: Not used

- Ram Address **1D**: best displayed in segment mode (S ELEC).

Segment **0** to **7**: **QD8-15** (for Down 8 to 15).

They show us respectively the state of the Hall Call Registration Lights for down QD8 to QD15.
Outputs QD8 to QD15 are the terminals D8 to D15.

OUTPUTS DEFINITIONS

- Ram Address **IF**: best displayed in segment mode.

Segment **0** to **7**: **POS0-7** (Positioning 0 to 7) (S ELEC).

They show us respectively the state of the Positioning Outputs POS0 to POS7.
The corresponding segments are on when the Outputs are activated and give out 0 Volts.
The corresponding segments are off when the Outputs are de-activated and give out 24 Volts.

- Ram Address **20**: best displayed in segment mode.

Segment **0** to **7**: **POS8-15** (Positioning 8 to 15) (S ELEC).

They show us respectively the state of the Positioning Outputs POS8 to POS15.

- Ram Address **61**: best displayed in segment mode.

Segment **7**: **V4** (Valve 4) (S CONT).

This shows us the state of Valve Relay 4.
Segment 7 is on when Valve Relay 4 is fed in order to drive Valve 4.
Segment 7 is out in the reverse case.

Segment **6**: **V3** (Valve 3) (S CONT).

This shows us the state of Valve Relay 3.
Segment 6 is on when Valve Relay 3 is fed in order to drive Valve 3.
Segment 6 is off in the reverse case.

Segment **5**: **V2** (Valve 2) (S CONT).

This shows us the state of Valve Relay 2.
Segment 5 is on when the Valve Relay 2 is fed in order to drive Valve 2.
Segment 5 is off in the reverse case.

Segment **4**: **V1** (Valve 1) (S CONT).

This shows us the state of Valve Relay 1.
Segment 4 is on when Valve Relay 1 is fed in order to drive Valve 1.
Segment 4 is off in the reverse case.

Segment **3**: **Not used**

Segment **2**: **L** (Line Relay) (S CONT).

This shows us the state of the Line Relay (L).
Segment 2 is on if Relay L is fed.
Segment 2 is off in the reverse case.

OUTPUTS DEFINITIONS

Segment **1**: Δ (Delta Relay) (S CONT).

This shows us the state of the Delta Relay.
Segment 1 is on when the Delta Relay is fed.
Segment 1 is off in the reverse case.

Segment **0**: **Y** (Star Relay) (S CONT).

This shows us the state of the Star Relay.
Segment 0 is on if the Star Relay is fed.
Segment 0 is off in the reverse case.

CONVERSION TABLE HEXADECIMAL ⇔ DECIMAL

Right hand figure

Left hand figure	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
B	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Using the table:

To convert a hexadecimal number to a decimal number, find the left hand hexadecimal digit in the left hand column of the table. Follow along the line until it intersects with the right hand digit to be found in the top row of the table. This value is the decimal equivalent of the hexadecimal number required.

Example: to convert the hexadecimal number **A4** into decimal, follow the row **A** in the left hand column until it intersects with the column **4** in the top row. This is the decimal equivalent of **A4**, i.e. **164**.

To convert a decimal number to a hexadecimal number, find the decimal number in the table. The first figure of the hexadecimal number is the digit shown in the left hand column of that line, and the second digit is the digit shown at the top of that column.

Example: to find the hexadecimal equivalent of **206**, find that value in the table. The hexadecimal equivalent is **CE**.

CONTROLLER PARAMETERS TABLE (1/2)

Add	Seg. 7	Seg. 6	Seg. 5	Seg. 4	Seg. 3	Seg. 2	Seg. 1	Seg. 0
00	CLF - CODE FOR LAST FAULT							
01	CFBL - CODE OF FAULT BEFORE LAST							
02	REGUL	DPLX	ISO	RMLIFT	NIVSIN	DSERVS	OUAVAR	FACTORY
03	NBDOR - NUMBER OF DOOR OPERATORS							
04	TOPLEV - TOP LEVEL							
05	BOTLEV -BOTTOM LEVEL							
06	LOBBY - MAIN FLOOR							
07	SAPB	CONFAL	NODOOR	MAN INS	SPL INS	CALSLZ	EDOP	DRODD
08	2S/RECA V1	LCF	DIF	ALLAN	CALCAN	GFD	RLVDC	RLVDO
09	GONGLEV	DORFALT	FSINS	NOFSDI	FIRESV	OSDC	FIRETYP	
0A	TIG - INTEGRATOR'S DURATION (2 TO 45 SECONDS [IN SECONDS])							
0B	TPV - SLOW SPEED DURATION (3 TO 255 SECONDS [IN SECONDS])							
0C	TPLU - AUTOMATIC LIGHT DURATION (2 TO 255 SECONDS [IN SECONDS])							
0D	TINS - INSPECTION DURATION (1 TO 255 SECONDS [IN SECONDS])							
0E	TCAPGV - TAPE HEAD FAST SPEED TIME (2 TO 25,5 SECONDS [IN $^{1}/_{10}$ SECONDS])							
0F	TCAPPV - TAPE HEAD SLOW SPEED TIME (3 TO 25,5 SECONDS [IN $^{1}/_{10}$ SECONDS])							
10	MSQCAB - MASK FOR CAR CALLS FROM 7 TO 0							
11	MSQCAB - MASK FOR CAR CALLS FROM 15 TO 8							
12								
13	MSQMO - MASK FOR ASCENDING FLOOR CALLS FOR LEVEL FROM 7 TO 1							
14	MSQMO - MASK FOR ASCENDING FLOOR CALLS FOR LEVEL FROM 15 TO 8							
15								
16	MSQDE - MASK FOR DECENDING FLOOR CALLS FOR LEVEL FROM 7 TO 0							
17	MSQDE - MASK FOR DECENDING FLOOR CALLS FOR LEVEL FROM 15 TO 8							
18								
19	TPISO - RELEVELLING TIMING (2 TO 10 SECONDS [IN SECONDS]) (with slotted tape)						PVCRH (with vanes)	PVCRB (with vanes)
1A	Not used with slotted tape { CROSSED VANES FOR SHORT INTERFLOOR 7-8 / 0-1						} Only with vanes	
1B	CROSSED VANES FOR SHORT INTERFLOOR 15-16 / 8-9 }							
1C								
1D	NUSPLX - NUMBER OF SIMPLEX (00 or 1)							
1E	TFR10 - FILTERING OF « 10 » (0 TO 0,5 SECONDS [IN $^{1}/_{100}$ SECONDS])							
1F	TPRAU - HOMING TIME (1 TO 255 SECONDS [IN SECONDS])							
20	RAUFAC1	RAUFAC2	TRAPM	NIVRAU - HOMING FLOOR				
21	TGONG - GONG DURATION (0,1 TO 10 SECONDS [IN $^{1}/_{10}$ SECONDES])							
22	COMDEM - NUMBER OF CAR TRIPS : 2 RIGHT HAND DIGITS							
23	COMDEM - NUMBER OF CAR TRIPS : 2 MIDDLE HAND DIGITS							
24	COMDEM - NUMBER OF CAR TRIPS : 2 LEFT HAND DIGITS							
25	NUMAR0 - ID NUMBER OF THE CONTROLLER (UNITS/DIZAINES)							
26	NUMAR1 - MONTH OF PRODUCTION OF THE CONTROLLER (IN HEXADECIMAL)							
27	NUMAR2 - YEAR OF PRODUCTION OF THE CONTROLLER							
28	REPT00 - POSITION INDICATOR AT LEVEL 00							
29 to 36	REPTxx - POSITION INDICATOR AT LEVEL xx							
37	REPT15 - POSITION INDICATOR AT LEVEL 15							
	ADAPTATION FOR A SPECIFIC NON-CLASSED HYDRAULIC POWER UNIT (CYHYD)							
38	V4	V3	V2	V1		LINE	DELTA	STAR
39	V4	V3	V2	V1		LINE	DELTA	STAR
3A	V4	V3	V2	V1		LINE	DELTA	STAR
3B	V4	V3	V2	V1		LINE	DELTA	STAR
3C	V4	V3	V2	V1		LINE	DELTA	STAR
3D	V4	V3	V2	V1		LINE	DELTA	STAR
3E	V4	V3	V2	V1		LINE	DELTA	STAR
3F	V4	V3	V2	V1		LINE	DELTA	STAR
40	RGPT	VERSTF1	P1SFCOU	P1SFCFE	PMAFCP1	MSTPMP1	AMPSEC1	MSTPRP1
41	TP01 - FRONT DOOR TIME (2 TO 255 SECONDS [IN SECONDS])							
42	TREP1 - FRONT DOOR RE-OPEN TIME (1 TO 255 SECONDS [IN SECONDS])							
43	FRONT	REAR	NIVMHS - OUT OF SERVICE FLOOR					
44	TIRP1 - FRONT DOOR RELAY INVERSION TIME (0 TO 2,55 S. [IN $^{1}/_{100}$ SEC])							
45	TFR8 - FILTERING OF « 8 » (0 TO 2,55 S. [IN $^{1}/_{100}$ SEC])							
46	TVP1/2 - FRONT AND REAR DOOR LOOK TIME (1 TO 255 S. [IN SEC])							
47	TIGPO1 - FRONT DOOR INTEGRATOR TIME (1 TO 255 SECONDS [IN SECONDS])							

CONTROLLER PARAMETERS TABLE (2/3)

Add	Seg. 7	Seg. 6	Seg. 5	Seg. 4	Seg. 3	Seg. 2	Seg. 1	Seg. 0
48	RCAME1 N00			PORCAB1 N00	OUAVAP1 N00	STP1OU N00	SER1I N00	OUNSIM1 N00
49 to 56	RCAME1 Nxx			PORCAB1 Nxx	OUAVAP1 Nxx	STP1OU Nxx	SER1I Nxx	OUNSIM1 Nxx
57	RCAME1 N15			PORCAB1 N15	OUAVAP1 N15	STP1OU N15	SER1I N15	OUNSIM1 N15
58	TDEMYD - STAR/DELTA (Y/D) START TIME (0 TO 6 SECONDS [IN $^1/_{10}$ SEC])							
59	TARMVT - MOVEMENT STOP TIME (0 TO 2,55 S. [IN $^1/_{100}$ SEC])							
5A	TPMPVM - SLOW SPEED MOVEMENT PROLONGATION TIME (0 TO 0,5 SEC. [IN $^1/_{100}$ SEC])							
5B	TYPHYD - TYPE OF HYDRAULIC POWER UNIT							
5C		RAMDES	BASE8N		DNH		DEMDIR	TAQUET
5D		DPLX			NIVSIN	DSERVS		
5E	TRAUN0 - AUTOMATIC HOMING TIME TO LEVEL 0 (0 TO 15 MINUTS. [IN MINUT])							
5F				STPREG	DCTQET		REGDRAL	
60		VERSTF2	P2SFCOU	P2SFCFE	PMAFCP2	MSTPMP2	AMPSEC2	MSTPRP2
61	TP02 - REAR DOOR TIME (2 TO 255 SECONDS [IN SECONDS])							
62	TREP2 - REAR DOOR RE-OPEN TIME (1 TO 255 SECONDS [IN SECONDS])							
63	CABVID	SHTCS/	ISOCLI	*RMLIFT*		REGUL	OuAvARCli	TPRAL
64	TIRP2 - REAR DOOR RELAY INVERSION TIME (0 A 2,55 S. [IN $^1/_{100}$ SEC])							
67	TIGPO2 - REAR DOOR INTEGRATOR TIME (1 TO 255 SECONDS [IN SECONDS])							
68	RCAME2 N00			PORCAB2 N00	OUAVAP2 N00	STP2OU N00	SER2I N00	OUNSIM2 N00
69 to 76	RCAME2 Nxx			PORCAB2 Nxx	OUAVAP2 Nxx	STP2OU Nxx	SER2I Nxx	OUNSIM2 Nxx
77	RCAME2 N15			PORCAB2 N15	OUAVAP2 N15	STP2OU N15	SER2I N15	OUNSIM2 N15
	SPG4	SPG3	SPG2	SPG1	SPG4	SPG3	SPG2	SPG1
78	RF - OVERLOAD BUZZER				VSU - OVERLOAD INDICATOR			
79	VHS - OUT OF SERVICE INDICATOR				GONG - GONG OUTPUT			
7A	INH1 - DOOR CELL OVER-RIDE OUTPUT				VPMP - FIRE SERVICE INDICATOR			
7B					LU - AUTOMATIC CAR LIGHT			
7E	DEF N-2 - FAULT CODE 3							
7F	DEF N-3 - FAULT CODE 4							
	SLOW DOWN DISTANCE AS A FUNCTION OF THE OIL TEMPERATURE							
C0	TEMPERATURE AT WHICH THE DISTANCE C8 IS CHOSEN							
C1	TEMPERATURE AT WHICH THE DISTANCE C9 IS CHOSEN							
C2	TEMPERATURE AT WHICH THE DISTANCE CA IS CHOSEN							
C3	TEMPERATURE AT WHICH THE DISTANCE CB IS CHOSEN							
C4	TEMPERATURE AT WHICH THE DISTANCE CC IS CHOSEN							
C5	TEMPERATURE AT WHICH THE DISTANCE CD IS CHOSEN							
C6	TEMPERATURE AT WHICH THE DISTANCE CE IS CHOSEN							
C7	TEMPERATURE AT WHICH THE DISTANCE CF IS CHOSEN							
	SLOW DOWN DISTANCE AS A FUNCTION OF THE OIL TEMPERATURE							
C8	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C0							
C9	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C1							
CA	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C2							
CB	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C3							
CC	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C4							
CD	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C5							
CE	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C6							
CF	↑ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C7							
	SLOW DOWN DISTANCE AS A FUNCTION OF THE OIL TEMPERATURE							
A8	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C0							
A9	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C1							
AA	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C2							
AB	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C3							
AC	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C4							
AD	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C5							
AE	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C6							
AF	↓ SLOW DOWN DISTANCE (EN %) CHOSEN UNTIL TEMPERATURE C7							
	MINIBLOC							
FF	CA	CB	INS	POMP	NIV	10	8	6

CONTROLLER INPUTS / OUTPUTS TABLE

[ ] = ON / REC OFF

Add	Seg. 7	Seg. 6	Seg. 5	Seg. 4	Seg. 3	Seg. 2	Seg. 1	Seg. 0
00	C7	C6	C5	C4	C3	C2	C1	C0
01	C15	C14	C13	C12	C11	C10	C9	C8
02								
03	M7	M6	M5	M4	M3	M2	M1	M0
04	M15	M14	M13	M12	M11	M10	M9	M8
05								
06	D7	D6	D5	D4	D3	D2	D1	M0
07	D15	D14	D13	D12	D11	D10	D9	D8
08								
09	NF7	NF6	NF5	NF4	NF3	NF2	NF1	NF0
0A	NF15	NF14	NF13	NF12	NF11	NF10	NF9	NF8
0B								
0C	SU		ED	MAN/	INS/	GM	GD	MASS/
0D			PH/	THV/DNH	RP/NHM	RG/RL	RM/RY	RD/RΔ
0E	RKISO	RZONE		PRIC	NS	SUSD	MHS	POMP/
0F				FF1	COI1	CS1/	FCFE1/	FCOU1/
10				FF2	COI2	CS2/	FCFE2/	FCOU2/
11					EXD	EXM	CAB	CAA
12				MTH/	STH/	« 10 »	« 8 »	« 6 »
13	CREP	LU/	FE1	OU1	CAM	GV/PV or V2(VF)	DE	MO
14	V1(VF)	V0(VF)		SH8	INH2	INH1	FE2	OU2
15	DEF	GONG	FD	FM	VSU	RF	VHS	VPMP
16	QC7	QC6	QC5	QC4	QC3	QC2	QC1	QC0
17	QC15	QC14	QC13	QC12	QC11	QC10	QC9	QC8
18								
19	QM7	QM6	QM5	QM4	QM3	QM2	QM1	QM0
1A	QM15	QM14	QM13	QM12	QM11	QM10	QM9	QM8
1B								
1C	QD7	QD6	QD5	QD4	QD3	QD2	QD1	QD0
1D	QD15	QD14	QD13	QD12	QD11	QD10	QD9	QD8
1E								
1F	POS7	POS6	POS5	POS4	POS3	POS2	POS1	POS0
20	POS15	POS14	POS13	POS12	POS11	POS10	POS9	POS8
21								
22	WEIGHT WEAK - ALTITUDE OF THE CAR							
23	WEIGHT STRONG - ALTITUDE OF THE CAR							
24	POSLOG - POSITION OF THE CAR							
28			CL					
61	V4(H)	V3(H)	V2(H)	V1(H)	ECOTAQ	L	Δ	Y
62						IGV	TACQ2	TACQ1
65	T°HUILE - OIL TEMPERATURE							
	MINIBLOC							
FF	CA	CB	INS/	POMP/	NIV/ZDEVR	« 10 »	« 8 »	« 6 »

FAULT CODES LIST (1/3)

Faults displayed by the 32 series. (BG15 board)

The letter shown in brackets signifies the type of fault.

- (A) Signifies that the fault is permanent and that the power supply needs to be turned off and back on again to RESET.
- (B) Signifies that the fault is temporary and that if the cause of the fault disappears, the controller will work again as normal.
- (C) Signifies that the fault is temporary, asked for by the technician when programming "provisional fault". (DCOPRO - Ad.07 - Bât.06)
- (D) Signifies that the fault can be ignored if the technician so requires.
- (*) Signifies that the fault is not registered in the fault list. The fault list on the Series 32 can be found at addresses **00**, **01**, **7E**, **7F** (left hand switch in lower position). Address **00** shows the last fault and address **7F** the oldest fault.

BEFORE LEAVING THE SITE, SET THE FAULT LIST BACK TO 00. IN THIS WAY YOU CAN KEEP BETTER TRACK OF ANY BREAKDOWNS.

FAULT N°	DESIGNATION	
-01-	0V CONNECTED TO EARTH.	**(B)**
-02-	SLOW SPEED TIME EXCEEDED.	**(A)**
-03-	INSPECTION TIME EXCEEDED.	**(D)**
-04-	SAFETY LANE CUT BEFORE « 6 ».	**(B)**
-05-	FAN THERMISTOR (THV).	**(B)**
-06-	CONTINUAL ABSENCE OF « 10 » WHEN RETURNING TO GROUND.	**(A)**
-07-	ERROR IN THE PROGRAMMING OF THE SPG1 TO SPG4 OUTPUTS.	**(A)**
-08-	DEPARTURE DELAY (SUSD).	**(B,*)**
-09-	MOTOR THERMISTOR (STH).	**(B)**
-10-	INVERSION IN THE ROTATION DIRECTION (DETECTED BY THE TAPE HEAD)	**(A)**
-11-	INCORRECT READING BY THE TAPE HEAD OR PROBLEM WITH FUSES FU3 AND FU4.	**(A)**
-12-	ONE OF THE CONTACTORS NOT DROPPED ON ARRIVAL.	**(C)**
-13-	FAST SPEED CONTACTOR NOT DROPPED IN SLOW SPEED	**(C)**
-14-	SLOW SPEED CONTACTOR NOT ENERGISED WHEN REQUIRED	**(C)**
-15-	MO OR DE CONTACTOR NOT ENERGISED WHEN REQUIRED OR FU9 OUT OF SERVICE (24R).	**(C)**
-16-	UP END LIMIT ON TEST (FREV).	**(B,*)**

WARNING :

PLEASE TAKE PRECAUTIONS WHEN YOU SEND US YOUR ELECTRONIC BOARDS (USE ANTI-STATIC BAGS)

FAULT CODES LIST (2/3)

FAULT N°	DESIGNATION	
-17-	PHASE FAILURE OR INVERSION (PH).	(B)
-18-	RESET IMPOSSIBLE DUE TO FALSE INFORMATION FROM THE TAPE HEAD.	(A)
-19-	« 8 » HAS BEEN CUT WHILE LIFT IN MOTION.	(B)
-20-	OIL TEMPERATURE EXCEEDS 100°C OR GAUGE NOT CONNECTED.	(B)
-21-	« 10 » MISSING.	(B)
-22-	SLIP INTEGRATOR.	(A)
-23-	« 6 » CUT WHILE LIFT IN MOTION OR SEE BRIDGE 0V, CS FOR NO CAR DOORS.	(B)
-26-	TAPE HEAD FAULT BEAM A.	(A)
-27-	TAPE HEAD FAULT BEAM B.	(A)
-28-	ONE OF THE CONTACTORS NOT DROPPED BEFORE MOTION.	(C)
-29-	FAST SPEED « GV » CONTACTOR NOT ENERGISED WHEN REQUIRED.	(C)
-30-	SLOW SPEED « PV » CONTACTOR NOT DROPPED WHEN FAST SPEED « GV » REQUIRED.	(C)
-31-	OVERLOAD FAULT (SU).	(B,*)
-36-	MAIN FLOOR IS SET HIGHER THAN HIGHEST LEVEL.	(A)
-37-	MORE THAN 16 LEVELS ARE PROGRAMMED (8 IF SELECTIVE ACCESS).	(A)
-38-	RESET, HOMING, OR OUT OF SERVICE FLOOR IS ABOVE HIGHEST FLOOR.	(A)
-39-	MAINS POWER IS TOO WEAK.	(B)
-40-	MAINS POWER IS TOO STRONG.	(B)
-41-	« 8 » IS CUT, AUTOMATIC DOOR IS CLOSED DURING ORIENTATION.	(B)
-42-	ERROR IN THE PROGRAMMING OF THE NUMBER OF DOOR OPERATORS (EXCEED 2).	(A)
-43-	END LIMIT NECESSARY FOR CAR DOOR OPERATOR	(A)
-44-	« 10 » NOT ESTABLISHED FOR OPERATOR 1 OR 2.	(B)
-46-	DOOR 1 OPEN LIMIT NOT REACHED.	(C)
-47-	DOOR 2 OPEN LIMIT NOT REACHED.	(C)
-48-	DOOR 1 CLOSE LIMIT NOT REACHED.	(C)
-49-	DOOR 2 CLOSE LIMIT NOT REACHED	(C)
-50-	OUT OF SERVICE MODE (MHS).	(B,*)
-51-	GOODS CONTROL MODE (PRIC).	(B,*)
-52-	« 10 » CUT WHILE IN MOTION.	(B)
-53-	FIRE SERVICE MODE (POM).	(B,*)
-54-	NON STOP OR FULL MODE (NS).	(B,*)
-55-	« ISO » RELEVELLING CONTACTOR NOT DROPPED.	(A)

WARNING :

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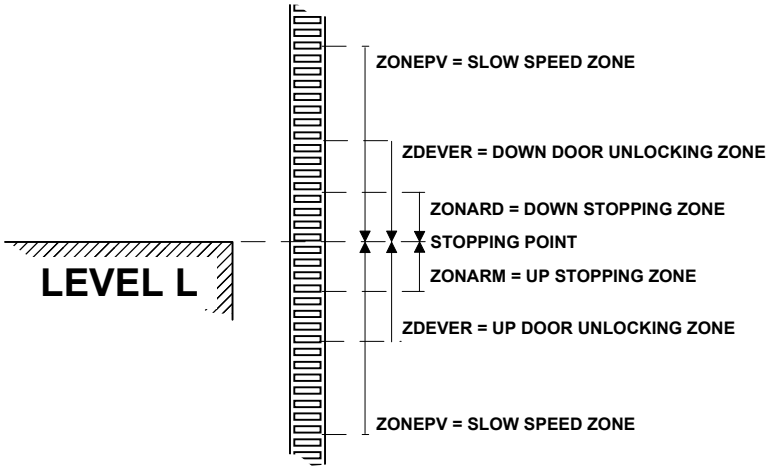
FAULT CODES LIST (3/3)

FAULT N°	DESIGNATION	
-56-	« ISO » RELEVELLING CONTACTOR NOT ENERGISED WHEN REQUIRED.	(B)
-57-	LIFT HAS GONE PAST RELEVELLING ZONE DURING RELEVELLING MOVEMENT.	(A)
-58-	MORE THAN 6 RELEVELLING MOVEMENTS.	(B)
-59-	RELEVELLING MOVEMENT EXCEEDS RELEVELLING TIME.	(A)
-60-	MAXIMUM PROGRAMMED HEIGHT IS TOO HIGH.	(A)
-61-	ERROR IN THE FLOOR PROGRAMMING.	(A)
-62-	FAULT WITH THE O03 TAPE HEAD.	(A)
-63-	CAR IS AT THE TOP AND THE BOTTOM AT THE SAME TIME, OR O03 TAPE HEAD NOT POWERED.	(A)
-64-	CAR INSPECTION AND MACHINE ROOM INSPECTION SWITCHED ON AT THE SAME TIME.	(B)
-65-	PERMANENT FAULT ON THE VF. CHECK THE FAULT CODE ON THE MLIFT.	
-66-	TEMPORARY FAULT CODE ON THE VF. CHECK THE FAULT CODE ON THE MLIFT.	
-69-	MOVEMENTS AFTER SAFETY LANE LIMITS HAVE BEEN CUT.	(A)
-70-	ANTI-CREEP NOT DROPPED WHEN REQUIRED.	(A)
-71-	ANTI-CREEP DROPPED WHILE CAR IN MOTION.	(B)
-72-	ANTI-CREEP NOT DROPPED WHEN CAR AT REST.	(A)
-73-	OIL LEVEL FAULT.	(A)
-74-	MINIMUM OIL LEVEL.	(A)
-75-	STAR CONTACTOR NOT ENERGISED WHEN REQUIRED.	(C)
-76-	DELTA CONTACTOR NOT ENERGISED WHEN REQUIRED.	(C)
-77-	LIGNE CONTACTOR NOT ENERGISED WHEN REQUIRED.	(C)
-78-	STAR OR DELTA CONTACTOR NOT DROPPED.	(C)
-79-	OIL TEMPERATURE TOO HIGH.	(C)

WARNING:

PLEASE TAKE PRECAUTIONS WHEN YOU SEND US YOUR ELECTRONIC BOARDS (USE ANTI-STATIC BAGS)

PARAMETERS CONCERNED THE SLOTTED TAPE



Name	Designation	Address
ZDEVER	**DOOR UNLOCKING ZONE**	**d4** and **d5**
ZONARM	**UP STOPPING ZONE**	**d2**
ZONARD	**DOWN STOPPING ZONE**	**d3**
ZONYST	**HYSTERISIS ZONE**	**b6**

Parameters linked to the relevelling		
TPISO	**RELEVELLING TIMING**	**19**
BNDISO	**RELEVELLING JUMP**	**bC**
ZONARI	**RELEVELLING STOPPING ZONE**	**d7**

Parameters linked to the slow-down distance		
DMINV2	**MINIMUM DISTANCE FOR V2**.....	**d8** and **d9**
ZONPV1	**SLOW SPEED ZONE 1 = V1 SLOW DOWN DISTANCE** ..	**dA** and **db**
ZONPV2	**SLOW SPEED ZONE 2 = V2 SLOW DOWN DISTANCE** ..	**d0** and **d1**

Parameters linked to the floor heights		
ALTNIV00	**Floor Height Level 00**	**81** and **80**
to	to	to
ALTNIV11	**Floor Height Level 11** (Alpha Serie)	**8F** and **8E**
…	…	…
ALTNIV15	**Floor Height Level 15** (32 Serie).....	**9F** and **9E**
	For the floor heights ⇨ *automatic set-up of levels*	

All of the information shown in the above table is shown in millimetres and in decimal, except the floor heights.

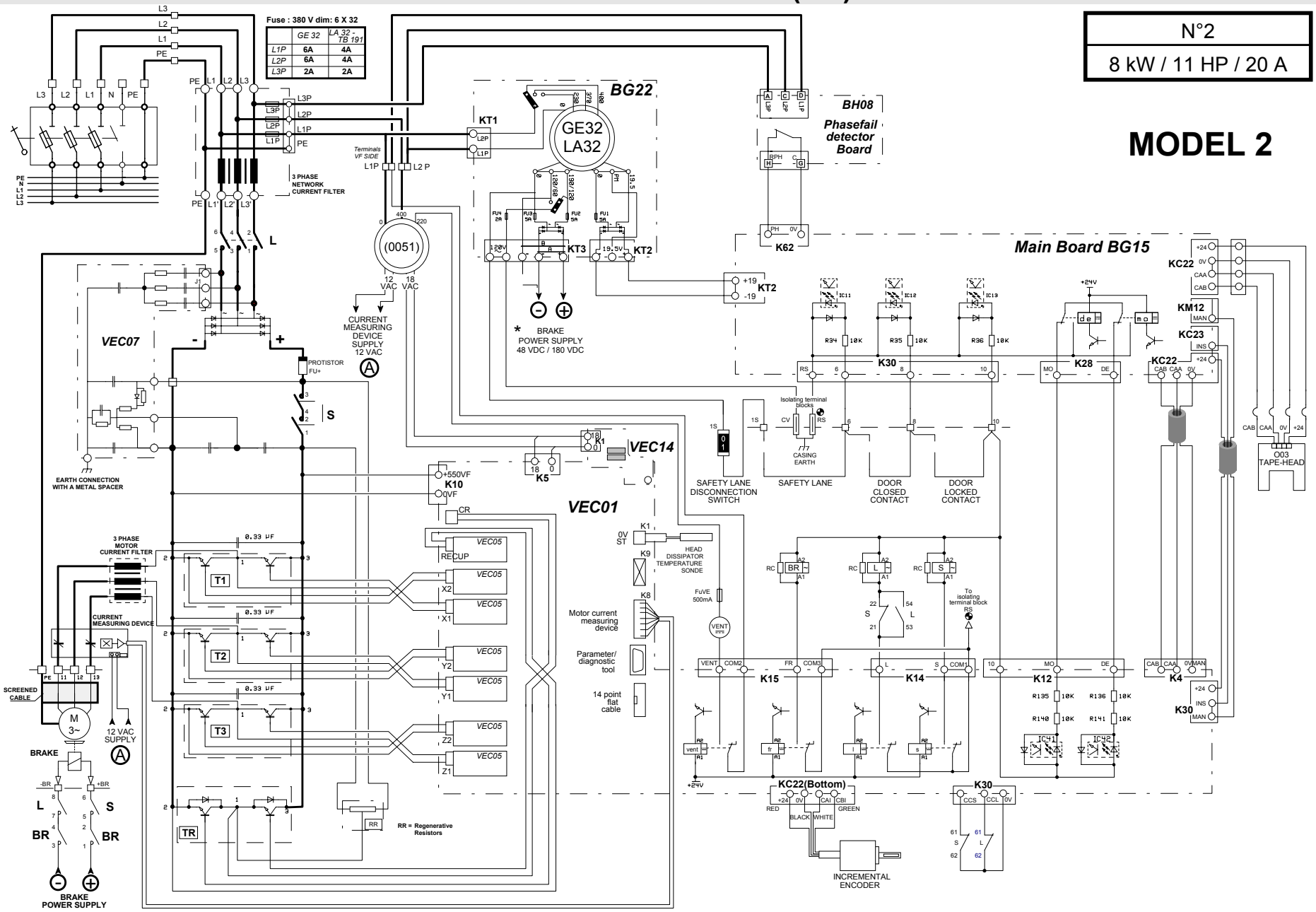
When the information is given over 2 addresses, the first address shows the thousands and hundreds, and the second shows the tens and units.

Example: For a slow-down distance (or slow speed zone) of **800 mm** (80 cm), you will read **08** at address **d0**, and **00** at address **d1**, i.e. **0800** millimetres.

ELECTRIC DIAGRAMS (1/5)

N°2
8 kW / 11 HP / 20 A

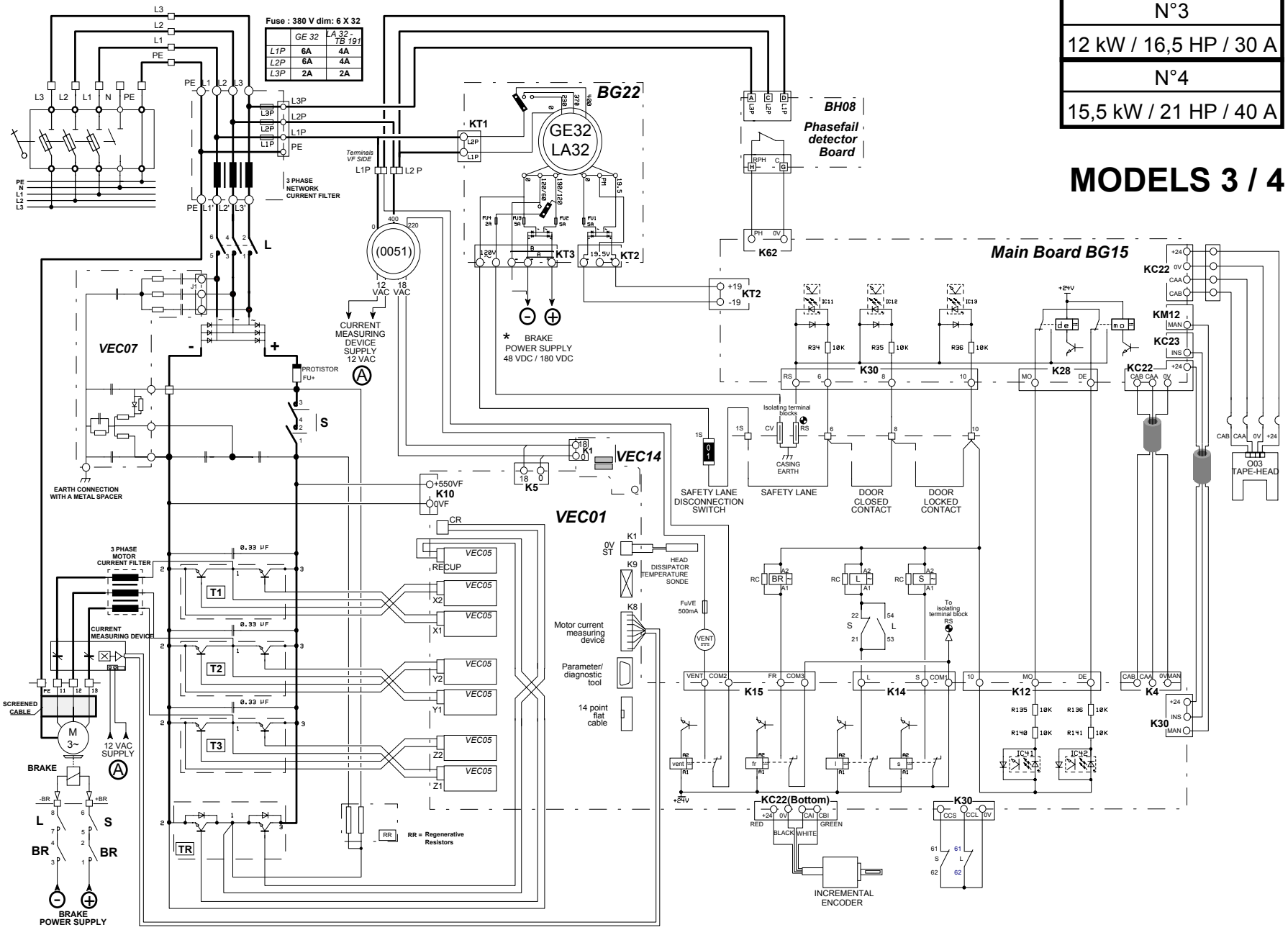
MODEL 2



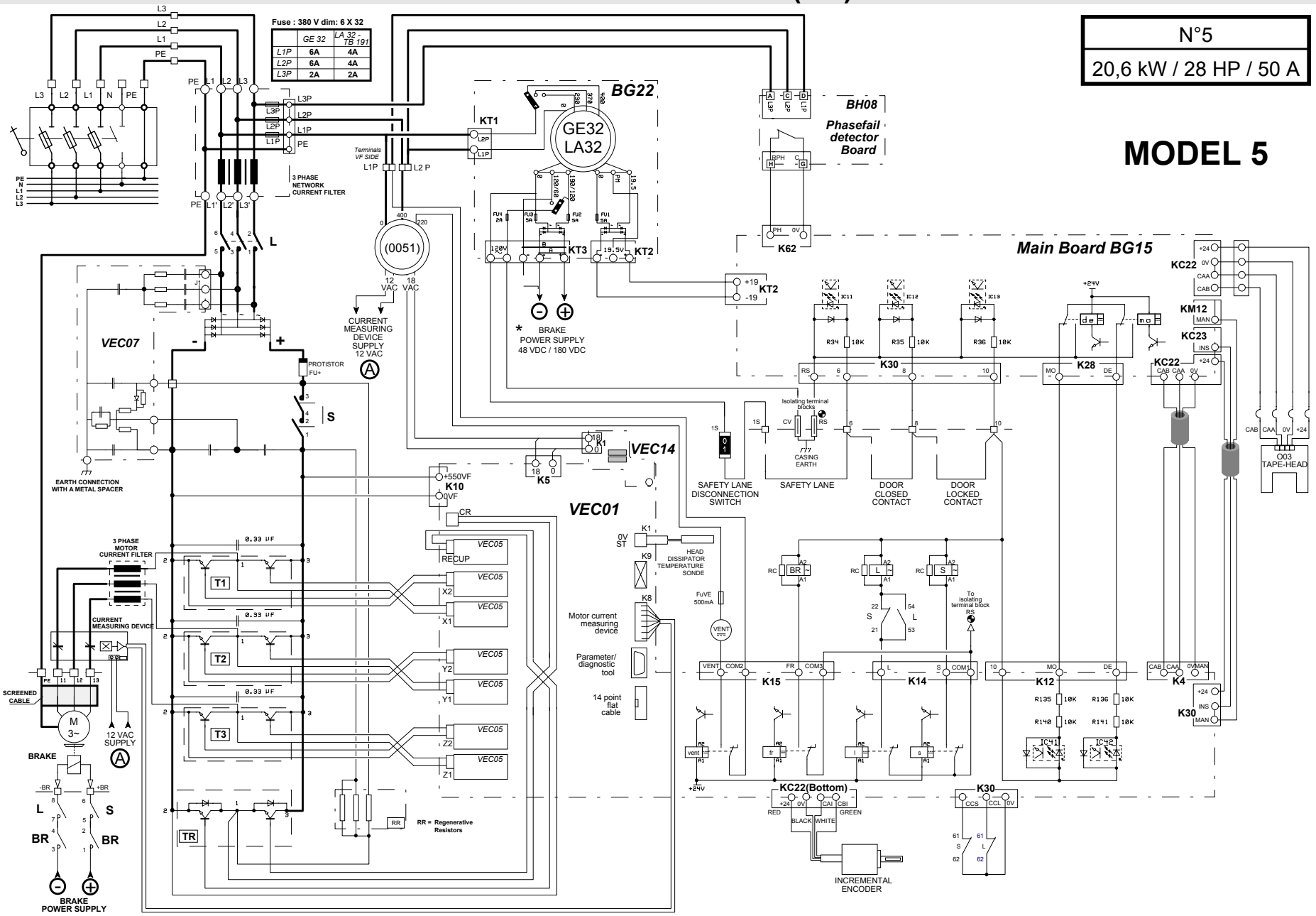
ELECTRIC DIAGRAMS (2/5)

N°3
12 kW / 16,5 HP / 30 A
N°4
15,5 kW / 21 HP / 40 A

MODELS 3 / 4



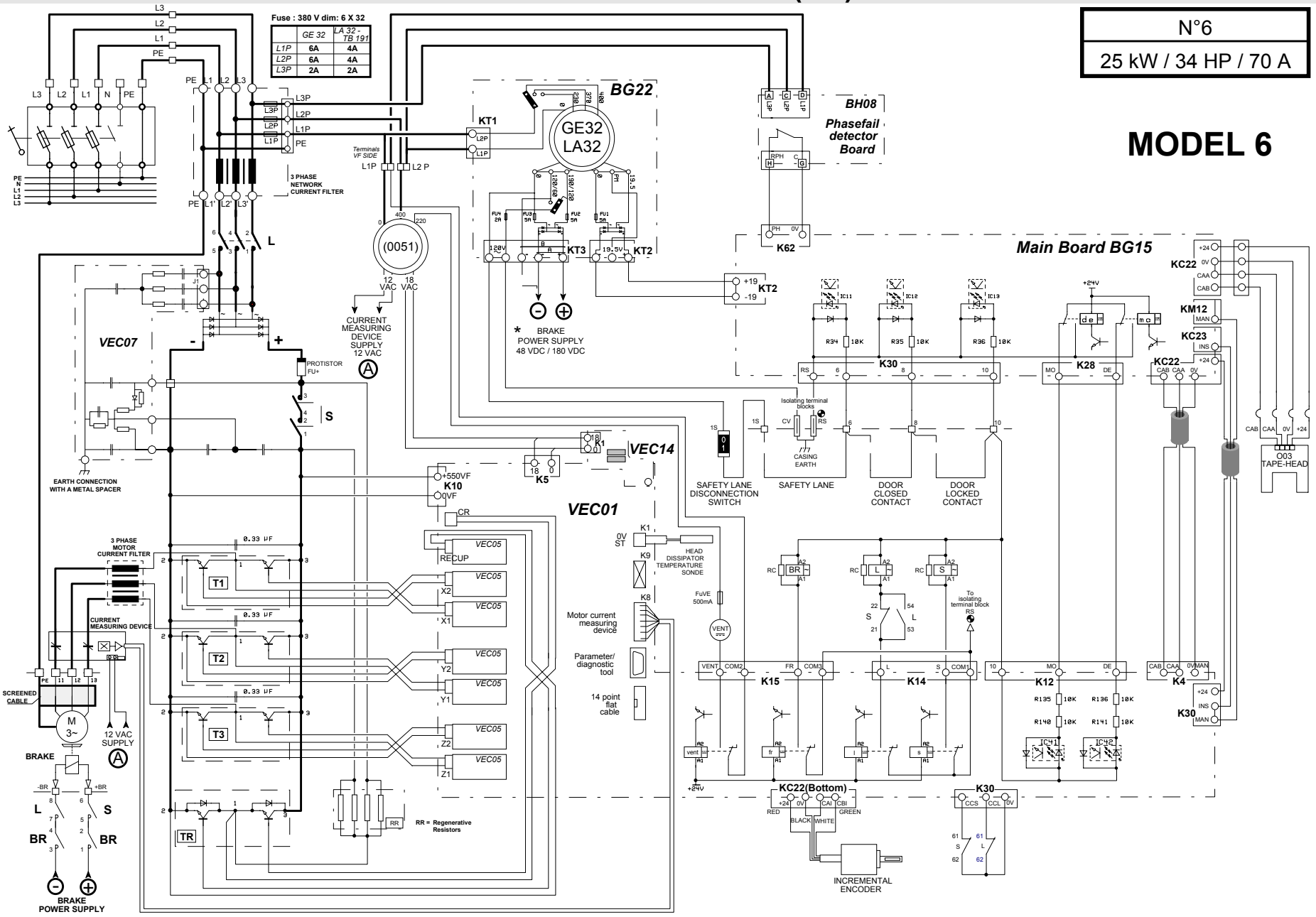
ELECTRIC DIAGRAMS (3/5)



ELECTRIC DIAGRAMS (4/5)

N°6
25 kW / 34 HP / 70 A

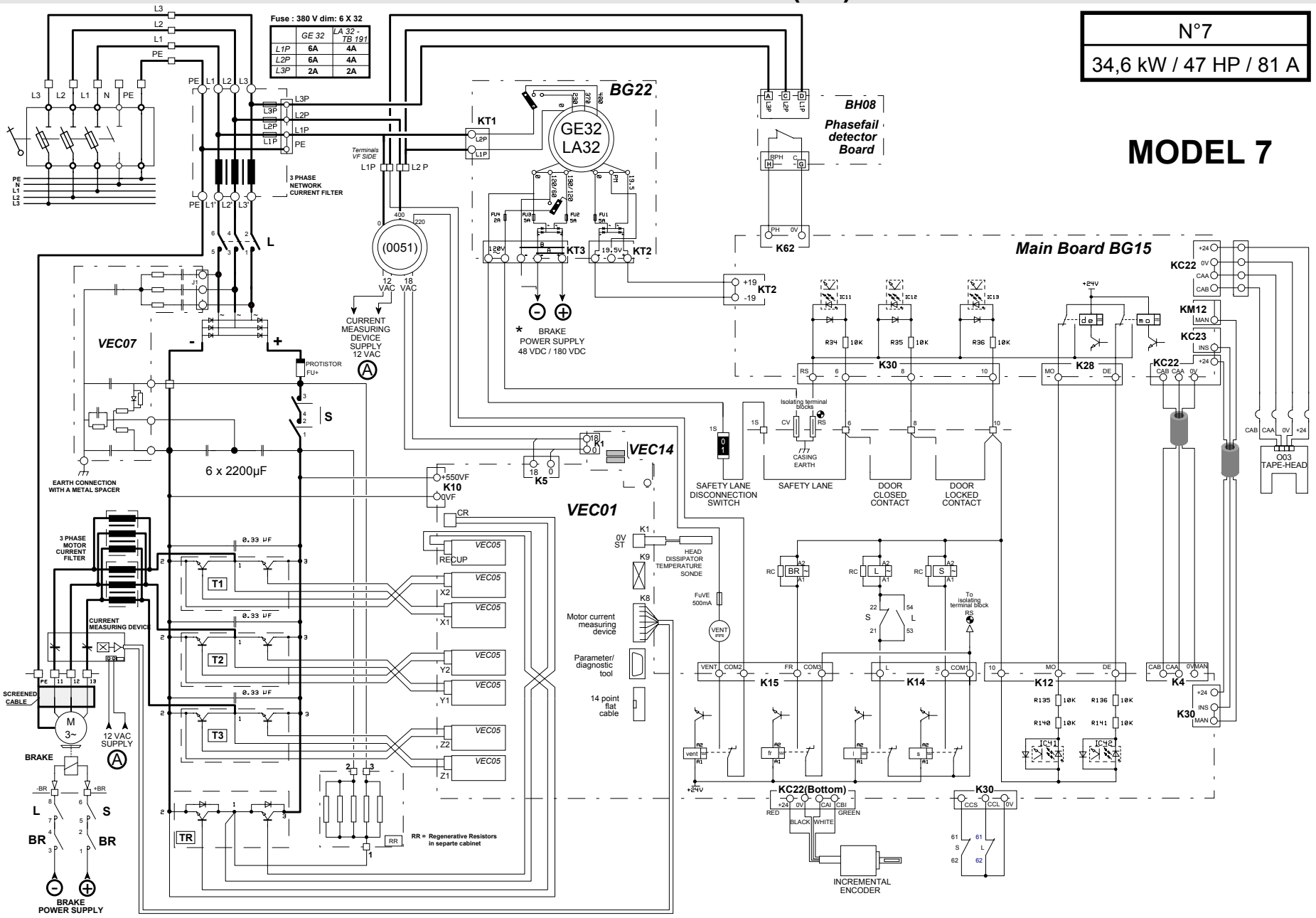
MODEL 6



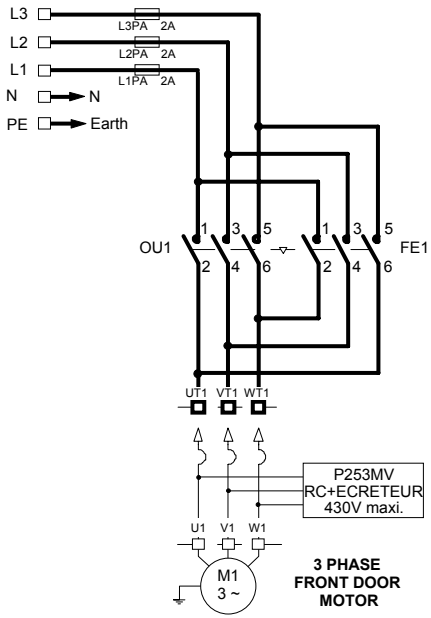
ELECTRIC DIAGRAMS (5/5)

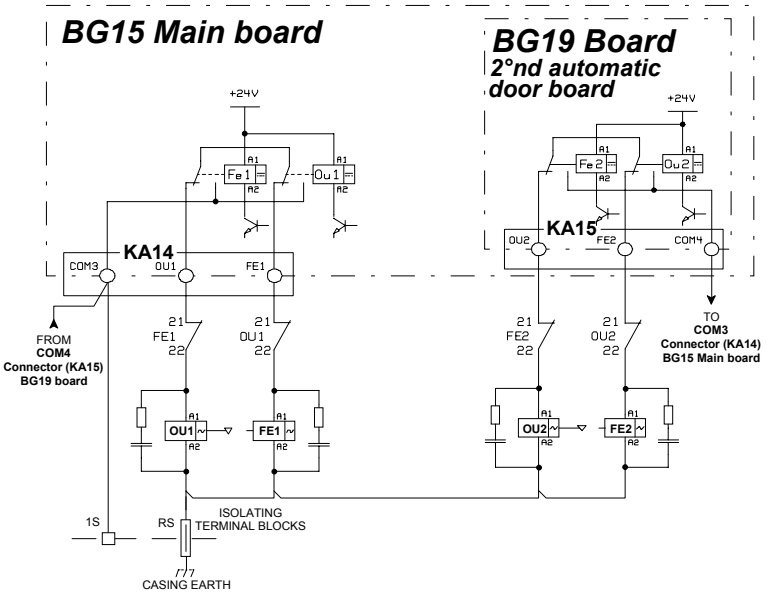
N°7
34,6 kW / 47 HP / 81 A

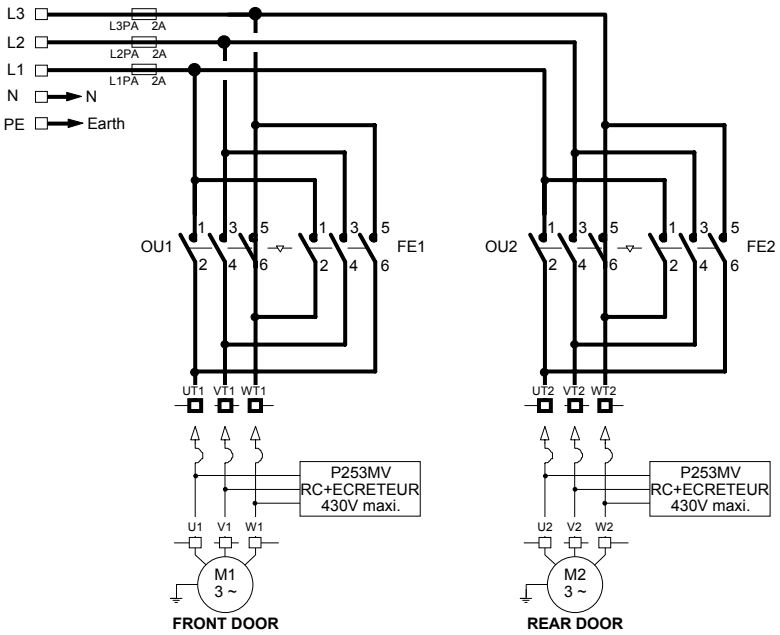
MODEL 7

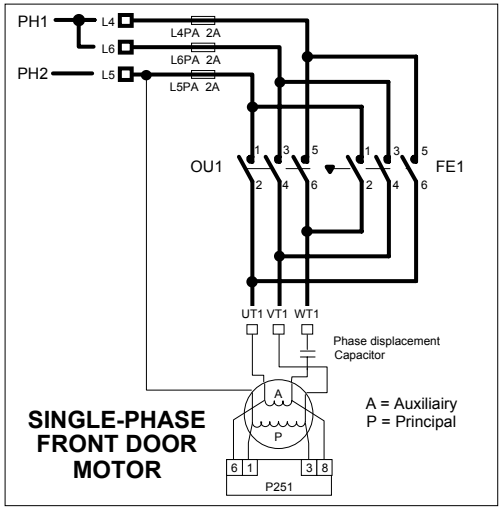


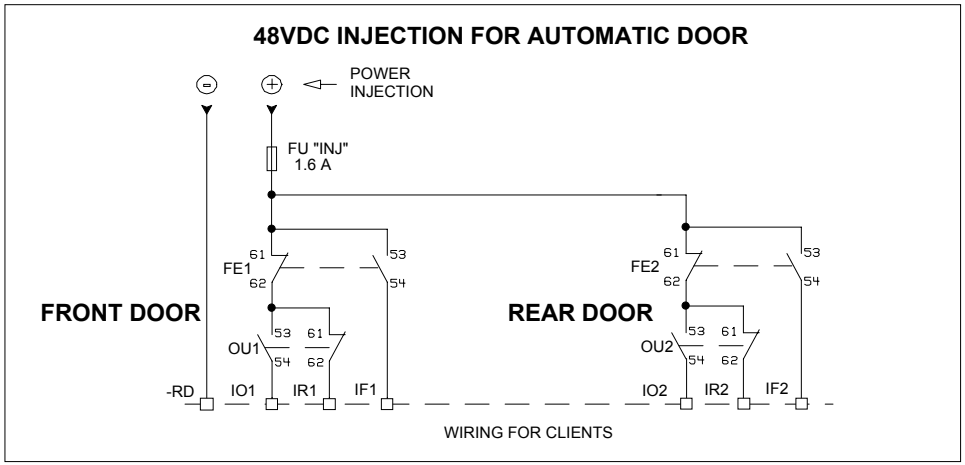
THREE PHASES OR SINGLE PHASE DOOR OPERATOR, FRONT AND REAR DOORS



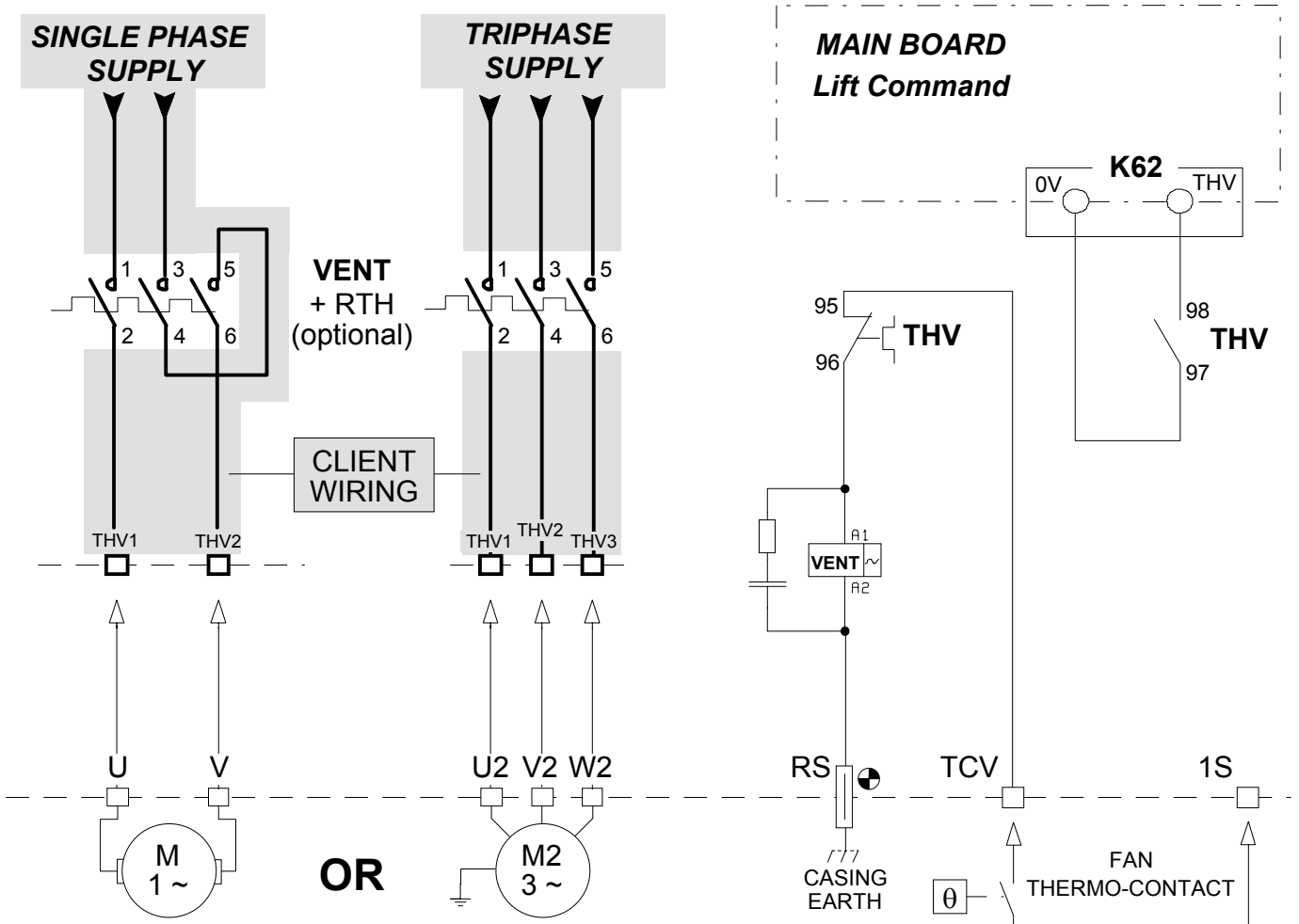








TRACTION MOTOR FAN



TRACTION MOTOR FAN
SINGLE OR TRIPHASE